

Manufacturers Record

Exponent of America



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Baltimore, Md.
NOVEMBER 29, 1923



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Let us therefore reverently sing:

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Praise Him above, ye heavenly host!
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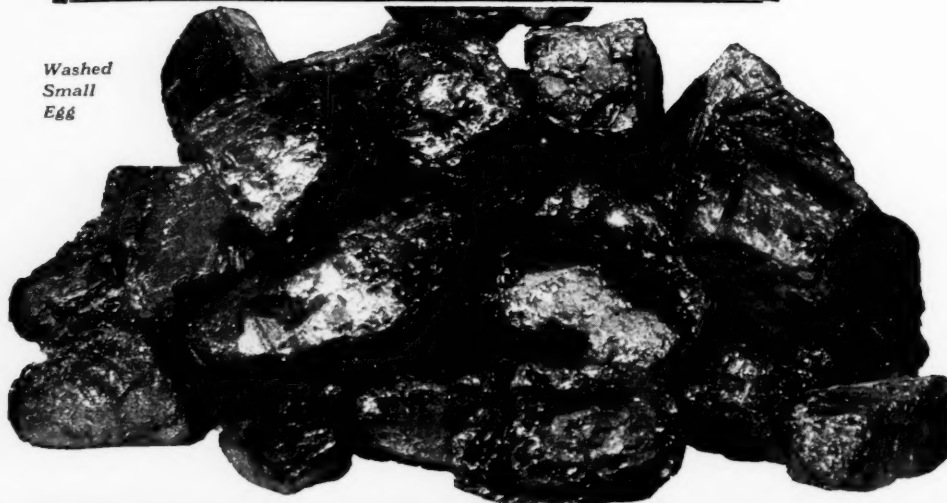
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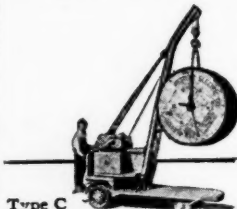


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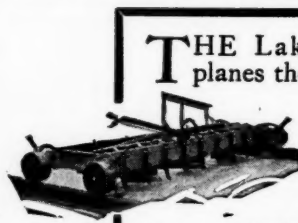
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North Carolina's Material and Educational Program Should Stir and Stimulate the South.

WHAT North Carolina has done in material and educational development could be done by every state in the South if animated by the same spirit. There is probably no state in the South which in one way or another has not advantages matching or offsetting those of North Carolina, marvelously blessed as North Carolina is. What one state may lack in some respect in comparison with North Carolina is perhaps offset by some other advantage. There are some states that in material resources have greater advantages than North Carolina, but they have not made the most of what they have to the extent that North Carolina has.

Not merely for the purpose of giving credit where credit is due, but for the purpose of stimulating other states to put forth the same kind of energy and broad vision which have wrought such marvels in that state, we would emphasize some facts presented in the Charlotte Observer as to what North Carolina is doing. Two weeks ago we told the story of a \$4,000,000 enterprise to build a great resort hotel and carry out kindred activities in Western Carolina. A few weeks before we told of the organization of Western North Carolina, Inc., to spend \$50,000 a year on a five year publicity campaign with many other special features involved in its work. So fundamentally sound is the proposition that it has been able to secure as president to give his entire time to the work, Mr. Joseph Hyde Pratt, one of the foremost geologists and highway builders in the whole South.

The Ford Motor Company is planning to build its biggest Southern automobile assembling plant at Charlotte, which is merely an indication of how activity begets activity, and how enterprise and enthusiastic work at home draw men and money from elsewhere.

But the story in the Charlotte Observer indicating some of the evidences of the educational progress of the state gives facts which are even more suggestive of what is being done in North Carolina than are the figures of material progress. These facts are:

"In 1900 expenditures for education in North Carolina amounted to less than a million dollars. In 1923 the expenditures total \$23,000,000, an increase of more than 2300 per cent. The increase from 1910 to 1922 was from about \$3,000,000 to \$23,000,000, or about 700 per cent.

"In 1900 the expenditures for new school buildings was less than \$41,000; in 1922 it was more than \$6,000,000.

"In 1900 the operating expense of the state's entire school system was less than a million dollars; in 1922 it was more than fifteen and a half millions.

"In 1900 the value of school property in the state was slightly over a million; in 1922 it was more than \$35,000,000.

"In 1900 the average value of each schoolhouse was \$150; in 1922 it was more than \$1500.

"In 1900 the average monthly salary of teachers was less than \$25; in 1922 it was more than \$102, for white teachers, while the salaries of colored teachers increased more than 300 per cent.

"In 1900, there were 1190 log schoolhouses in the state; in 1920 only 71.

"In 1900, the average length of public school term in the state was 73 days; it has been lengthened to 141 days.

"In 1900, the total eligible school population was 657,943; it has increased to 889,406.

"The number of persons attending school almost doubled from 1900 to 1920.

"In 1900, the enrollment in the schools was 60 per cent of the total eligible school population; it had increased to 85 per cent in 1922.

"In 1900, North Carolina had about 30 high schools; in 1923 the number had increased to 475.

"In 1900, the high school enrollment was about 2000; in 1923 it had increased to more than 48,000.

"In 1900, there were no public rural libraries in the state; in 1923 there are more than 4800, the number having doubled in the last 13 years.

"In 1900, the state appropriated \$8000 for permanent improvements at its educational institutions during a two-year period; the legislature of 1923 appropriated for the same purpose for a period of two years more than \$7,000,000, on top of a similar amount appropriated by the legislature of 1921.

"In 1900, the state appropriated for two-years' maintenance of its educational institutions \$47,000; in 1923 the appropriation for the same period and purpose was \$3,496,750.

"In 1900, the percentage of illiteracy in North Carolina was 29.4. It had been reduced in 1920 to 13.1, the percentage of the white race being 7.2."

Commenting on what it calls the amazing educational progress during the period of 23 years, the Observer says that "in some respects the progress of the last three years has been greater than that of all the previous twenty years combined," and we venture the assertion that the progress of the future will far exceed the progress already made.

But in addition to this wonderful educational progress the Observer might have turned to the Blue Book of Southern Progress and found indications of the remarkable advance in material things.

In 1900 the capital invested in manufacturing in North Carolina was \$68,283,000. In 1920 it was \$669,144,000.

In 1900 the value of the manufactured products of North

Carolina was \$85,274,000, and in 1920 the total was \$943,808,000.

In 1900 North Carolina cotton mills used 190,000,000 pounds of cotton; in 1920 they consumed 449,000,000 pounds.

In 1900 North Carolina produced 29,790,000 bushels of corn. In 1920 it produced 54,630,000 bushels.

Perhaps no more striking illustration of the material progress of the state could be given than a contrast of the figures of its banks and their resources and deposits.

In 1900 the total resources of the national banks of North Carolina was \$15,362,000. In 1920 it was \$183,816,000.

In 1900 the total deposits in national and state banks were \$16,700,000. In 1920 they were \$315,000,000.

In 1900 the assessed value of property in North Carolina was \$306,579,000. In 1920 it was \$3,139,705,000.

In these comparisons we have used the figures of 1920 because they are the official Census figures and their accuracy cannot be questioned.

If North Carolina's population could be bodily transferred to any other state in the South, and the population of that state lifted over and dropped into North Carolina so as to give the North Carolinians a full sweep, the same marvelous results would be accomplished. The North Carolina people would turn a desert into a garden. They would dare to spend money for education and for other things because they have learned by experience that the expenditure of money for material and educational progress is the wisest investment that a state can make.

The Observer gives great credit to Charles B. Aycock and Charles D. McIver, two of the great educational leaders of North Carolina twenty years ago, for much of the educational progress of that state, but the MANUFACTURERS RECORD while not withholding from them any due measure of credit, would give to D. A. Tompkins and to his associate, Mr. Caldwell, in the ownership of the Observer, much of the credit for all of the stir and stimulation and advancement of North Carolina. These two men, working harmoniously for many years together until death called them from their labors, sowed the seeds of material and educational advancement year in and year out as few men have ever done in any other state in the South.

Tompkins was born in South Carolina, but he early settled in Charlotte. He was the most tireless, indefatigable worker whom the writer has ever known. He was an industrial statesman of the highest order. He preached industry. He practiced it. He traveled by night and worked by day, and his travels took him from Texas to New England, and wherever he went he preached work and industry and enthusiasm. He preached education, and preeminently technical education, and through the Observer he and his associate, Mr. Caldwell, concentrated the thought of North Carolina upon material and educational betterment to the exclusion of rotten politics and more rotten sensationalism.

Governor Morrison has recently dubbed political demagogues as "boll weevil politicians," destroyers of what other men have tried to accomplish. Tompkins and Caldwell were ceaselessly working against such politics—the politics of men who tear down, who seek to build on the destruction of things which others have accomplished. Moreover, much of North Carolina's spirit of road-building has been an outcome of the tireless work of Mr. Tompkins.

From the day when Mecklenburg County in which Charlotte is located, began its road building campaign Tompkins made speeches about the value of highways. He wrote unceasingly on the subject. He published pamphlets showing mule teams carrying over Mecklenburg's good roads far more cotton bales than they could possibly carry over bad roads. He distributed these pamphlets broadly throughout the state at his own expense, and he made every man and woman in North Carolina understand the value of good roads.

Often he was criticized for these activities; sometimes he was thought to be merely an enthusiast. Some people did not understand the really tremendous mental power that he was giving so freely for the welfare of others. But, unmoved by criticisms, undaunted by delays in working out these plans, he never halted until death claimed him for its own. Almost the last words that he spoke to the writer while struggling against a long illness which he bore with patience and fortitude, were: "I am simply waiting for the Master's call."

That call was heard shortly afterwards, but before it was heard Tompkins had sown the seed which are producing much of the wonderful fruitage in North Carolina's progress. Here and there some other men in the South are doing a similar work; but, oh, that there were a thousand men like Tompkins and others whose lives, really dedicated to the advancement of this section, founded too on success in their own business, could stir and stimulate every state in this section and quicken the life blood of every man and woman in it for material and educational advancement.

REPORT FAVORING FREIGHT RATES' RE-ADJUSTMENT.

THE possibility of a reduction in freight rates on important basic commodities by readjusting freight rate schedules is shown by a committee of the United States Chamber of Commerce which was appointed to study and report upon the situation. The committee finds that a readjustment of class rates should result in a measurable increase in the total revenue of the railroads, which may be augmented by advances in certain commodity rates which it is claimed are now too low in relation to other rates, but we imagine that there will be a strong fight against any advance in commodity rates.

The reduction of rates on important basic commodities is regarded by the committee as only one phase of the larger problem of readjusting relative freight schedules. "The rate problem of the hour," says the report, "is one of better adjustment of relative rates; not of a general reduction of all rates."

It is noted that since the World War "many farm products, especially hides and hogs and grains, (except corn), because of the continued large output and the reduced demand abroad, have gone practically to pre-war price levels or even below, * * * and freight rates that may formerly have been satisfactory to shippers and carriers alike may by reason of the changed price levels have been thrown out of equitable adjustment."

Furthermore, the committee says that "the great economic changes incident to and resulting from the war have created additional disparities resulting from horizontal rate changes, from the dislocation of relative price levels and from increases of labor costs and terminal expenses which have borne with greater weight on some classes of traffic than on others. The situation renders a readjustment of relative freight rates of great immediate importance."

Besides a number of railroad officers the membership of the committee includes Dr. Frank App, of the New Jersey Federation of County Boards of Agriculture; J. M. Belleville of the Pittsburgh Plate Glass Co.; E. J. Frost, of William Filene's Sons Co., Boston; D. B. Heard, of the Dwight B. Heard Investment Co., Phoenix, Ariz.; Frank F. Henry of the Washburn-Crosby Co., Buffalo, N. Y.; C. S. Keene, Vice President American Tobacco Co.; Alex. Legge, President International Harvester Co., Chicago; E. M. Poston, president New York Coal Co., Columbus, O.; P. C. Sprague, of the M. A. Hanna Co., Cleveland, O.; and Theo. F. Whitmarsh, president Francis H. Leggett Co., New York.

"MANY MEN OF MANY MINDS."

THE MANUFACTURERS RECORD recently editorially expressed the idea that diversity of thought was as essential to the South as diversity of crops. One phase of diversity is illustrated in some recent reports and letters which we have received. The old copy book used to tell us there are "many men of many minds," and the MANUFACTURERS RECORD constantly has illustrations of that fact.

A few days ago a letter was received from Mr. B. P. Templeton of Delvalle, Texas, renewing his subscription for two years and adding in his letter, "The RECORD is worth more to me for general information than all the other books and papers of recent date that I have read and its editor is the only one who has the grit and courage to tell the truth and say how he stands 'on all business and political questions.'"

Letters of that kind could be quoted by the hundreds. They are fully appreciated but they do not cause us to be puffed-up with vanity, for if we were given to vanity it would certainly be knocked out by letters of other kinds which we sometimes receive. The same mail which brought us the letter from Mr. Templeton brought a report from one of our traveling representatives to whom the president of a national bank in North Carolina said in substance: "I am opposed to the MANUFACTURERS RECORD's policy of the last three or four years and consider it dangerous to the morals of the South and of the entire country. I wish the MANUFACTURERS RECORD were out of business. I would not allow it to come into my bank and do not want any of my organization to read it, or any young business man anywhere. In years past the MANUFACTURERS RECORD did the South a lot of good in a business way, but the moral tone of its editorials for the last three years is dangerous."

When our banker-friend of former years, but banker-enemy of the present, due we imagine to our criticisms of the former mismanagement of the Federal Reserve Board, or perhaps to our opposition to the League of Nations or both, denounces the morals of the MANUFACTURERS RECORD and is unwilling that the young men of his bank or of the South should read it we wonder just what he really had in mind in the matter of morals.

Does he oppose its fight for obedience to law?

Does he oppose its fight in behalf of prohibition and the enforcement of prohibition laws and of all other laws?

Does he oppose the fact that once in a while it deals with the religious side of world affairs on the basis that individual and world salvation for man and for business itself can rest in safety only on the foundation of religion?

Does he regard these teachings as immoral?

These are the dominant questions, from the moral standpoint, which the MANUFACTURERS RECORD has for some years been upholding.

Is our banker-friend- or- enemy opposed to these teachings?

Would he have us encourage lawlessness?

Would he have us encourage the liquor interests?

Would he have us discourage the thought of religion?

Would he have us proclaim the things that are moral rather than fight for things which are immoral?

Or is it merely that he is unwilling for himself or the young men in his bank to know any facts connected with the former mismanagement of the Federal Reserve Board, which have been denounced by the Supreme Court of the United States?

Is he unwilling to know that the Supreme Court, the highest court in the world, has in every case brought before it on these issues taken exactly the same ground which the MANUFACTURERS RECORD had previously taken?

Or- does he hold that the former mismanagement of the Federal Reserve Board in its effort to destroy state banks

was superior to the Supreme Court and thus to the very nation itself?

From the same town as the statement of this banker-enemy there came a statement from the president of another bank in which he was reported by our representative as "expressing his firm faith in this paper, its fight against deflation and praised the MANUFACTURERS RECORD to the skies for this and other work for the South and the country!"

Here are three opinions which we submit to our readers. Probably every newspaper in the land is constantly running across exactly similar conditions. One man is an enthusiastic friend; one man thinks that everything that the paper does is wrong; one man takes a prejudice and nothing can change his opinion. He feels that "he is a self-made man and he worships his creator" and believes that he, and he alone, is right in whatever position he may have taken.

Diversity of thought, as we have often said, is good for the South. It is good for every country. Unanimity of thought is well-nigh impossible among men who think for themselves and who study broadly the great questions of the day, economic and others. And so we leave our banker friend or enemy to his own thoughts, diverse as they are from those of others, and wonder just what are the "morals" of the MANUFACTURERS RECORD's editorial columns which have so aroused his ire.

Another bank president in discussing the Federal Reserve Board's mismanagement, as criticized from time to time by the MANUFACTURERS RECORD, "admitted that the Record might be right and his views be wrong but he thought that because Mr. W. P. G. Harding was a Southern man he should have been reappointed." With that view we cannot agree. We would wish to see Southern men in office when Southern men measure up to the responsibilities of their position, but we do not want to see men in office merely because they were born below the Mason and Dixon Line unless they are worthy of their office. And we do not see how any thoughtful, intelligent man, however deep may be his love for his own section, can prefer incompetency in office in place of efficiency merely because the incompetent man was born in the South.

Moreover the United States Supreme Court has so completely in every case brought before it decided against the methods formerly pursued by the Federal Reserve Board's efforts to "coerce" state banks, and make "war upon them," using the language of the courts, that our position on these points has been overwhelmingly sustained by the highest tribunal in the world.

Taking an entirely different view of the work of the MANUFACTURERS RECORD from that expressed by the North Carolina banker whom we have quoted, Mr. J. E. Turner, vice president of the Exchange National Bank of Fitzgerald, Georgia, in the course of a letter on other matters, adds:

"I wish to assure you that I am reading the Manufacturers Record with very great interest and it is my opinion that no one can ever calculate the amount of good that you are doing for our Southern country and for the nation as well."

Mr. Paul P. Brown, Secretary of the North Carolina Bankers Association, in a letter just received, says:

"Possibly, on account of the fact that we Southerners agree with you so often in your editorial comments is the real reason for our bankers' failing to reply to your letter. This office is a regular subscriber to the MANUFACTURERS RECORD and we always enjoy reading it carefully."

From Mr. Wm. D. Kizziah, Spencer, N. C., comes a letter under date of November 20 which says:

"I have recently had the privilege of reading the MANUFACTURERS RECORD and so essential do I consider it as a vital part of the equipment of any business enterprise that

I am sending in my subscription and advising those with whom I have business relations to do likewise.

"For the South, it is the highest type of press agent, giving the facts that are necessary for the upbuilding of this section so that the interest of other sections of our country will be drawn to the Southern states."

That is the spirit in which tens of thousands of people in the South regard the MANUFACTURERS RECORD. We wish for the good of the South that every other business man, whether he be a manufacturer, a merchant, a banker, or a professional man, would know and study the South through the information given in the MANUFACTURERS RECORD.

SOUTH CAROLINA MAKES A STRONG MOVE TO BENEFIT TENANT FARMERS AND LARGE LAND OWNERS.

THE effort which South Carolina has undertaken to stop the trend of population away from that state by making it possible for its tenant farmers to become land owners, and at the same time planning for long time loans and low rates of interest for the development of land settlement work, not only for the tenant farmers of the state, but for those who may be drawn in this way to South Carolina, is one of the most interesting movements under way looking to the development of the South. The story is told in detail elsewhere in this issue.

This plan should be carefully studied by the people of every state of the South. It shows that South Carolina is awake and is determined to utilize its potentialities for the betterment of its agricultural conditions, which would mean the betterment of all classes of its people. There is very little land in South Carolina which is not more inviting for settlement and better for farming than was the sandhill region of North Carolina centering around Southern Pines thirty years or more ago. After the timber had been cut off, that region was about as barren a spot as any man would ever want to look upon. It seemed to be one vast, dreary waste of sand. When John T. Patrick undertook the establishment of the town of Southern Pines he was vigorously denounced by many people of his own state, and by some of the state officials, on the ground that the region was so desolate and poverty stricken that any attempt to develop it would reflect upon the whole state and do great harm.

The Seaboard Air Line officials looked upon the project as a forlorn hope. They did not believe it possible that that section of country could ever be made to prosper; and as the writer from time to time passed through that region thirty years or more ago, and tried sometimes to drive a buggy through it, the deep sand gave an impression of a hopeless proposition. It was almost impossible to find a stretch of road on which a horse could move more rapidly, even to a light buggy, than a walk. The timber had all been cut out. Here and there little patches of scrub oak appeared, but the land seemed too poor even to grow scrub oak. Patrick, however, believed that in its climate that section had an advantage justifying an effort to settle it. He also had faith in its possibilities for fruit growing.

Today the whole Southern Pines-Pinehurst-Hamlet region has been changed as by a miracle. Land once selling at 15c to 25c an acre is today worth anywhere from \$100 to \$300 an acre, and some even sells at a still higher figure. These dreary stretches of sand have now blossomed forth into superb orchards and vineyards.

Prosperity reigns where poverty once held full sway.

What has been done in the Southern Pines region, as the outcome largely of the tireless work of one energetic soul who never knew how to admit defeat, can be done over a large part of South Carolina and, indeed, over a very large part of every backward region in the South, by the same

kind of energy and broad vision. Now that South Carolina has actively taken up the study of the improvement of its agricultural conditions we hope to see every other state in the South follow its good example, and thus South Carolina may have perhaps inaugurated a move which will be of inestimable value not only to its own people, but to the whole South.

GREAT TIMES AHEAD.

MR. S. W. STRAUS, of New York, who has been active for thirty years or more in financing new building operations, in a statement given to the President in person, as quoted in a dispatch to the New York Commercial, said:

"There is a potential need of \$8,000,000,000 worth of new buildings in the United States today, notwithstanding the fact that building operations this year are 25 per cent ahead of 1922. Last year the nation's new volume of construction was \$4,000,000,000. This year it will be \$5,000,000,000. So it will require fully a year and a half of the most intensive operations to make up the present shortage. With these large activities there is no likelihood of the United States having to face any unemployment problems at least in the immediate future.

"An important development in the industry this year is the great increase of winter building. * * * These facts, I am sure, reflect the universal confidence of the business interests of this country in the continuance of business expansion."

The MANUFACTURERS RECORD has constantly pointed out during the last few years that there was an enormous building shortage or vacuum, created by the fact that from the panic of 1907 up to last year we had never done any building in proportion to the growth of the country. This vacuum has not been filled. Mr. Straus, who keeps in touch with the building interests of the entire country, believes that the shortage at present amounts to \$8,000,000,000. If his view is correct it means that our country will be severely taxed for some years to fill up this vacuum or shortage and to keep up with the normal rate of growth.

The railroad experts estimate that it will require at least \$8,000,000,000 to maintain railroad efficiency in the way of new tracks and new rolling stock during the next ten years. That, we think, is the minimum estimate which should be counted upon, and if legislation unfavorable to the railroads does not halt their progress and break down their credit we anticipate that the amount expended in the next ten years should considerably exceed the estimate of these railroad experts.

With the building of highways in progress in every part of the country and of necessity increasing in force during the next few years, we thus have this form of construction work added to railroad and building construction activities. Our annual expenditure upon the purchase and maintenance of automobiles of \$9,500,000,000 a year is equal to one-half the total present investment of all the railroads of the country. How much longer we can continue to spend this enormous annual outlay on automobiles and motor trucks it is difficult to foresee. There is some danger of overdoing the business. Nevertheless, it must be remembered that but for the automobiles and motor trucks our entire transportation interests would have broken down completely. We can no more conceive how business could be continued at present without the automobiles and motor trucks than we can conceive how we could do without the railroads or the telephones.

There are great times ahead of us in this country and if our financial system is only wisely managed we shall go forward during the next ten years in an era of development far surpassing anything that we have ever known in former years.

ARKANSAS AND ITS POTENTIALITIES.

A RKANSAS is doing a wise thing in sending a train through much of the country to give ocular demonstration of the resources of that state. On board are 116 of leading people, men and women alike, from Arkansas who are not only presenting to the thousands who visit their train the advantages possessed by their state, but who are studying what other states have accomplished in order to catch inspiration for their own people.

In Baltimore the Arkansas delegation was entertained at dinner, and as the editor of the MANUFACTURERS RECORD was not able to accept the invitation to be at the dinner he sent as an expression of his views on Arkansas the following facts, briefly stated, about that very wonderful state, as yet comparatively slightly developed as measured by its almost limitless potentialities:

"Arkansas is nearly seven times as large in area as Maryland, but its population is only slightly larger than that of this state. In resources of soil, climate, minerals and timbers it holds a unique position, making certain that it will inevitably become one of the richest and most populous states of the Union.

"Its coal area almost equals the entire area of Maryland, or 7500 square miles of coal territory.

"It is becoming one of the leading oil producing states of the country.

"In 1922 it ranked second as a cotton growing state, coming next to Texas with a yield of over 1,000,000 bales.

"It produces over 60,000,000 bushels of grain a year.

"Its expenditures for common school educational work jumped from \$2,400,000 in 1910 to \$7,500,000 in 1920. Some of the high school buildings, even in towns of moderate size in Arkansas, surpass in architectural attractiveness and in cost any high school building which we now have in Baltimore.

"Arkansas furnishes the raw material for practically the entire aluminum industry of the United States.

"It claims the largest peach orchard in the world, and its peaches surpass in size any which I have ever seen produced elsewhere, and their flavor matches their size.

"Its apples are known far and wide among apple growers and consumers, and have repeatedly taken the highest prizes at expositions of fruits. At an apple exposition some years ago there were 135 varieties of Arkansas apples, and 350 varieties of other fruits, and it is estimated that Arkansas can probably grow 200 varieties of grapes.

"Many years ago the stories of the Arkansas Traveler, unfortunately accepted by millions of readers as indicating the conditions and the spirit of Arkansas, placed a stigma upon that state from which it has never fully recovered. The injury done to Arkansas by these stories has been almost immeasurable.

"The state has a wide variety of climate and of soil and of minerals and of timbers. In it I have found mountain views matching in sublime beauty the wonders of Western Carolina. I have seen rivers which when harnessed, as is now being done for some, will furnish many hundreds of thousands of hydro-electric power. I have marveled at the extent and the productivity of its peach and its apple orchards. I have seen its wonderful cotton growing area, and the rich lands which produce its great grain crops. I have noted the wealth of its timber lands, the superb charm of its plateau and mountain climate. I have marveled at times at the progress and the solidity of growth of its cities.

"It is the only state in the Union in which diamond mines are to be found, and, as I have just said, it furnishes the raw material for our aluminum industry, vast in extent as it is.

"With its limited population as compared with its area it

has not yet made progress commensurate with its natural advantages. It needs to be more widely known by the nation, for of all states in the Union it is least known and least appreciated by the people of the country at large. But the natural advantages and the almost limitless mineral and soil resources are there waiting their fuller utilization.

"It has within its borders perhaps the most widely known health resort in America, where at the present time one hotel to cost \$3,000,000 is under construction."

A BANKER'S VIEW ON BUSINESS OUTLOOK.

TAKING exactly the same view in regard to business conditions which we have constantly stated of late, Mr. Wm. A. Law, Chairman of the First National Bank of Philadelphia, in his November 15 financial letter says:

"The country has made the best kind of progress within the past month and the outlook in the Philadelphia district and elsewhere has been improved by more favorable developments abroad, the continued flow of merchandise into consumptive channels, the noteworthy strength of the bank position, the absence of inflation and the upward trend of security prices. The nation is showing a surprising buying power which is explained by the full employment of 110,000,000 people at pretty nearly the highest wage and salary basis on record. In the section served by the Philadelphia market, there is a growing confidence that this truly remarkable year will end with American industry in fine shape and the nation well prepared to meet the probable exactions of a larger trade demand in 1924."

The buying power of the American people at the present time is very justly attributed by Mr. Law to full employment at pretty nearly the highest wage and salary basis on record; and that is exactly what will be the buying power of this country just so long as wages and salaries continue fairly profitable to the employees of the country. There is no prosperity based on low wages and low salaries. We are glad to see this leading banker, indirectly it is true, commend good salaries and good wages as the basis for national prosperity. Whenever wages and salaries are low there is poverty everywhere. Whenever they are high prosperity reigns throughout the land.

The trouble with China and India as samples of appalling poverty is the low wages which prevail in those countries. Much of England's troubles are due to low wages which have prevailed for many years.

Wherever high wages are paid increased purchasing power is given to the masses of people.

There is still room, however, for a very general increase in many salaries, especially in banks and institutions noted for paying small salaries. Teachers and preachers and many clerks are paid far less than the wages of day laborers or of hod carriers and bricklayers. Salaries must be adjusted on a higher plane wherever this may be feasible.

With the higher wages now prevailing there naturally comes a larger demand for agricultural products, and thus the farmer inevitably gets the benefit from the high wages paid to the consumers of foodstuffs, although the farmers are still handicapped by the fact that the prices which they receive are not commensurate with the wages received in industrial employment. The adjustment between the two is not yet complete. The outcome should be not a reduction of wages, but an increase in the price of farm products which would give to the farm laborer and the farmer profits relatively the same as the industrial worker gets.

Low prices and pessimism and stagnation always go hand in hand.

Optimism and prosperity always are co-existent with good employment and full wages.

RAILROADS WILL NEED NEARLY \$8,000,000,000 IN NEXT TEN YEARS.

AN outline of the magnitude of the transportation problem during the next few years is presented in a report that has just been made by the Committee on Governmental Relations to Railroad Transportation, of the Chamber of Commerce of the United States, of which Julius H. Barnes is president. It states that upon the basis of detailed studies made by a majority of Class 1 railroad companies the committee estimates that there will be an increase of 25 per cent in passenger and of 33 1-3 per cent in freight traffic on the railroads alone during the next ten years, and that to furnish facilities, including equipment, to meet these increases an expenditure of \$7,870,000,000 will have to be made. This will include the cost of providing more than 38,000 miles of additional tracks, over 13,000 locomotives, 725,000 freight cars and 12,300 passenger cars over and above the present railroad equipment. The huge sum named is said to be the least amount of new capital which the railroads will require to enable them to maintain pace with the growth of business. It is advised that Congress be urged to refrain from making any changes in any of the important provisions of the Transportation Act of 1920 until it has been thoroughly tried out by experience.

The chairman of this committee is George A. Post, president of the George A. Post Company, of New York; and the membership includes W. R. Cole, president Nashville, Chattanooga & St. Louis Railway Co.; Hale Holden, president Chicago, Burlington & Quincy Railroad Co.; Samuel M. Vauclain, president Baldwin Locomotive Works; Daniel Willard, president Baltimore & Ohio Railroad Co.; Joseph S. Frelinghuysen, president Stuyvesant Insurance Co., New York; Roy D. Chapin, chairman Hudson Motor Car Co.; L. E. Sheppard, president Order of Railway Conductors; Paul M. Warburg, and others.

Furthermore the report declares for private ownership and operation of the railroads under a comprehensive system of government regulation, which would protect the public interest and preserve competition, while seeking to give fair return to capital and fair wages to employees.

Concerning the decision of the Interstate Commerce Commission that a return of 5 3-4 per cent upon the aggregate value of railroad property is fair, the report observes that experience has not yet shown whether this percentage will or will not be adequate to restore railroad credit.

AN ENGLISH LOAN HEAVILY OVERSUBSCRIBED.

MONEY seems to be abundant in England for many purposes if we are to judge by the fact that Lord Rothermere, owner of many newspapers in England, recently issued \$40,000,000 of debentures. The subscriptions reached \$500,000,000 and there was a string of people a quarter of a mile long waiting their turn to secure copies of the prospectus and when these were exhausted the crowd continued to increase and became so insistent that the streets had to be cleared by the police. The flood of applications was so large that five hundred clerks had to be employed to handle them, and thousands of applications arrived too late to be accepted. Herbert N. Casson of London, in giving these details in the Wall Street Journal adds: "There is no doubt but that Lord Rothermere holds the palm as the world's most efficient borrower. The savings of the English people appear to be quite at his disposal."

Mr. Casson might have added that the savings of the English seem to be on an enormous scale when they offer \$500,000,000 for a bond issue of \$40,000,000.

THE COTTON TRADE SITUATION.

THE exports of cotton for October and for the first three months of the crop year, August, September and October, as given by the Department of Commerce, were as follows:

EXPORTS OF DOMESTIC COTTON AND LINTERS (running bales)

Country to which Exported	October		3 mos. ending Oct. 31	
	1923	1922	1923	1922
Total	*781,722	*798,664	*1,715,572	*1,439,862
United Kingdom	213,654	235,827	505,056	450,604
France	115,434	120,513	268,657	203,880
Italy	86,694	71,379	176,078	132,462
Germany	152,529	140,143	354,854	259,432
Other Europe	93,874	111,760	215,035	204,765
Japan	94,491	99,432	157,472	143,329
All other countries	25,046	19,610	38,420	45,390

*Figures include 3938 bales of linters exported during Oct. in 1923 and 1535 bales in 1922, and 11,505 bales for the three months ending Oct. 31 in 1923, and 8927 bales in 1922. The distribution for Oct., 1923 follows: United Kingdom, 348; France, 938; Germany, 1791; Belgium, 429; Greece, 44; Canada, 379; Mexico, 9.

These figures show a total increase in exports for the three months of 276,000 bales, of which the gain to the United Kingdom was 54,000 bales, to France 65,000 bales, to Italy 44,000 bales, and to Germany 95,000 bales, Germany leading all other countries in its increased cotton importations.

During October, as compared with the corresponding period last year, there was a slight decrease in exports to the United Kingdom and France, but an increase of 12,000 bales to Germany, and 15,000 bales to Italy.

The detailed figures of cotton spinning operations for October as compiled by the Department of Commerce show that according to preliminary figures 37,550,250 cotton spinning spindles were in place in the United States on October 31, 1923, of which 34,378,662 were operated at some time during the month, compared with 33,929,885 for September, 33,708,667 for August, 34,237,887 for July, 34,843,421 for June, 35,390,137 for May, 35,515,791 for April, 1923, and 33,837,435 for October, 1922.

The aggregate number of active spindle hours reported for the month was 8,381,886,213. During October the normal time of operation was 26 3/4 days (allowance being made for the observance of Columbus Day in some localities), compared with 24 1/2 for September, 27 for August, 25 for July, 26 for June, 26 1/2 for May, 24 2-3 for April, and 27 for March. Based on an activity of 8.74 hours per day, the average number of spindles operated during October was 35,851,435 or at 95.4 per cent capacity on a single shift basis. This number compared with an average of 34,941,676 for September, 32,075,013 for August, 32,657,966 for July, 36,897,371 for June, 40,192,970 for May, 40,759,979 for April, 40,389,029 for March, and 36,788,414 for October, 1922. The average number of active spindle hours per spindle in place for the month was 223.

The total number of cotton spinning spindles in place, the number of active spindle hours and the average spindle hours per spindle in place by states, are as follows:

State	Spinning Spindles		Active Spindle Hours for Oct.	
	In place October 31	Active during October	Total	Average per spindle in place
United States	37,550,250	34,378,662	8,381,886,213	223
Cotton-growing States	16,638,075	16,084,942	4,809,617,872	269
New England States	18,885,837	16,579,516	3,181,317,824	168
All other States	2,026,338	1,714,204	390,950,517	193
Alabama	1,327,909	1,262,157	362,605,535	273
Connecticut	1,305,412	1,239,386	257,899,978	198
Georgia	2,694,523	2,609,088	772,904,083	287
Maine	1,140,928	1,092,874	222,682,735	195
Massachusetts	11,973,717	10,201,348	1,932,155,873	161
New Hampshire	1,449,260	1,218,838	153,464,384	106
New Jersey	448,634	420,524	80,166,877	179
New York	1,039,914	893,993	218,777,810	210
North Carolina	5,615,271	5,451,153	1,678,271,855	299
Pennsylvania	205,046	150,054	33,150,480	162
Rhode Island	2,871,712	2,682,262	583,959,833	203
South Carolina	5,158,154	5,017,683	1,523,469,680	295
Tennessee	452,444	429,513	114,548,855	253
Virginia	678,112	655,668	164,396,802	242
All other States	1,189,214	1,054,121	283,431,433	238

THE NATION'S COAL SUPPLY DEPENDENT UPON NON-UNION MINERS IN THE SOUTH.

OUR West Virginia correspondent warns our readers of the probability of a coal strike in the bituminous regions next spring. A similar prediction has been made by Mr. L. A. Snead, president of two companies, in a statement wired from Atlantic City to the New York Times. Mr. Snead says, "A coal strike in the union bituminous fields affecting about 75 per cent of the nation's coal production is certain. There are three major problems on which neither the operators nor the miners will arbitrate. One is the wage question, the other the 'check-off,' and the third, the national versus district agreements. Any one of the three will prove sufficient to bring about a strike."

Further discussing the subject Mr. Snead said:

"The bituminous miners are now receiving war wages and will insist on at least the retention of the present wages and may ask for an increase, encouraged as they are by the success of the anthracite workers this year. The present rate of pay in the bituminous fields is about 50 per cent higher than before the war, but in view of other conditions—for instance, the fact that the mines run, at the outside, only 75 per cent of the time—the miners say they are not able to produce a living wage. The operators feel that the wages are not in keeping with other trades and will insist upon a reduction.

"As to the check-off, the operators believe it to be an iniquitous imposition. That they should have to deduct from the miners' pay dues which go into the hands of the United Mine Workers' Union and used to finance strikes, seems to the operators to be highly unjust. The United Mine Workers, on the other hand, will insist upon the check-off, because it ultimately means the very existence of their organization.

"Both sides are deeply interested in the national versus district agreements. Prior to the war there was no national agreement. Each of the big bituminous centres—Central Pennsylvania, West Virginia, Ohio and Illinois, for instance—had its own agreement with the operators and miners. It was so arranged that these agreements expired at different times during the year. To provide against a strike, should one occur in one district, the other districts could speed up production and reduce the effect of the existing strike.

"As a war measure, the Fuel Administration found it necessary to make an agreement general in its character and national in its scope, and it is still in operation. The operators want to go back to the pre-war district agreement situation."

The safety of this country from a complete coal famine in times past has come from the non-union coal miners of the South. In order to destroy this safeguard of the country, union miners are steadily putting forth their utmost efforts to break down non-union mining interests. If they could be successful, the entire country would be absolutely under the domination of union coal miners.

Governor Pinchot, we think, made an egregious blunder when he settled the Pennsylvania coal strike on a basis which has added fifty million dollars or more to the cost of anthracite coal to the consuming public. Every effort which he has made since to counteract this evil effect by trying to throw the blame on somebody else only shows how bad was the blunder in the settlement which he brought about. If Governor Pinchot, instead of trying to secure a conference of all states using anthracite coal, had started in by bringing about an elimination of the tax on every ton of anthracite coal which gives to the State of Pennsylvania an income of four or five million dollars a year and had taken some steps to prevent the Girard estate and other coal interests from constantly jacking up the royalties on the coal mined on their properties, he would have shown a degree of independence

against local interests which would have strengthened his hands in the effort he is now making to prevent the increased cost of anthracite coal, which every intelligent man knew would inevitably come about the moment his compromise plan was carried through, by which the coal miners got practically everything they asked for and the consuming public, as usual in such compromises, got left.

With the anthracite field tied up in this way the situation in the bituminous industry become all the more acute and possibly dangerous. It behooves every coal consumer to store up during this winter every ton of coal that he is likely to need for next year. And then he can individually at least be independent of the lessened supply of coal which will probably come about through the threatened strike. If the strike should not occur it is hardly probable that there will be any material reduction in price to offset the advantage of having coal stored, while it is available for next year's needs.

The safety of the country will largely depend upon storing coal and upon the maintenance of the non-union coal mining operations. If the non-union mines can be continued on the American or open shop basis as at present they will be a safeguard against an inadequate supply of coal for the operation of the railroads of the country. And if coal consumers are well stocked up they can bid defiance to the radical agitators, who in seeking to close all of the mines of the country are endeavoring to place themselves in a position to absolutely bulldoze the nation into submission to their demands.

These demands are not simply for higher wages, but for the "check-off" system, one of the most iniquitous methods ever permitted to exist in any industry. The operators are compelled to deduct from the wages of their men and pay into the union coffers whatever dues or assessments the union may levy against the coal miners. The coal operators in this way practically become the emissaries or agents of the union miners for the express purpose of permitting the union miners to completely dominate the industry. It is no wonder that every coal operator of backbone deeply resents being placed in such a position, tied hand and foot, body and soul, to union mining interests.

THE OPEN SHOP AND ITS MEANING.

THE American Plan-Open Shop-Conference at its recent meeting in San Antonio, Texas, adopted the following statement of its purpose and the meaning of the Open Shop:

"The Open Shop, as understood by the American Plan-Open Shop-Conference, is defined as follows:

"Since the interest of the general public is of supreme consideration in all industrial as well as political matters, the rights of no class, faction or party can be permitted to interfere with the greater public interest.

"All men, in fact (for such is the governmental theory), are entitled to follow the vocation or business to which their qualifications most incline them. No man should be denied or have abridged or interfered with, his right to secure and retain employment in any trade or calling on account of his affiliation or non-affiliation with any labor organization or any other society or association. In like manner no discrimination for or against any man, in wages, working conditions or continuity of employment, should exist on account of such membership or non-membership. Furthermore, the right of an employer to hire or dismiss employees should not in any wise, directly or indirectly, be interfered with.

"However, in the maintenance of these principles, the employe should not, by economic pressure, boycott or in concert or otherwise, attempt to force the employer either to hire or to discharge any man on account of such membership or non-membership; nor should the employer hire exclusively

employees of any one class and thereby purposely discriminate against employees of the other class.

"Nothing should be done either by the employer or the employe to limit in any way the right of the American youth to learn any calling or enter upon any business.

"The adoption of the Open Shop, as defined by the foregoing principles, would, in our opinion, redound to the immediate and great economic benefit of the American people and give all employees equal opportunity for fair wages and proper working conditions; and to employers reasonable conditions of business conduct.

"The Open Shop has not for its purpose the reduction of wages, the lengthening of hours of employment, or the lowering of the standards of employment or any other oppression of labor. On the contrary it stands essentially for freedom of employment relations with the fullest protection of the workman in his wages, hours of employment and proper working conditions of health and safety."

RAILROADS ARE BLUNDERING ON HOMESEEKERS' RATES.

THE proposed plan of the Southeastern Railroads for homeseekers rates as outlined in last week's issue of the MANUFACTURERS RECORD have very justly called forth a prompt reply from H. H. Richardson, Chairman of the Committee on Homeseekers Rates of the National Association of Real Estate Boards.

In a letter to Mr. W. H. Howard, Mr. Richardson calls attention to the fact that for several weeks the Committee had been seeking an opportunity to be heard upon some of the points at issue but that this request has been ignored notwithstanding a number of letters had been written to the executive officers of the carrier members and to the Chairman. In his letter, Mr. Richardson said:

"As it now seems that the carrier members of the Southeastern Passenger Association have assumed the arbitrary stand that the rates will be put into effect without granting a hearing to the Committee on the points upon which we differ, this is to give notice that such action on the part of the carriers meets with our disapproval and we are compelled to take this means to bring to your attention the following."

And then details are given as to wherein these rates are not satisfactory. Mr. Richardson adds:

"From the letters received by the writer it would seem that some of the executives are under the impression that the basis upon which these rates will be issued and the regulations governing the issuance of the same were worked out in conference with the writer as Chairman of the Committee and that the same had been approved by him prior to their presentation to the interested lines. This is a grave misunderstanding as no conference has been had on this subject with the writer, and the rate basis and regulations are not in accordance with the application of the Committee in so far as items Numbers 1, 4 and 5 are concerned, notwithstanding repeated efforts have been made to have such a conference or hearing."

Mr. Richardson calls attention to the fact that his Committee represents and has the backing of the National Association of Real Estate Boards comprising over 20,000 active members in forty-six states, state and local associations of real estate boards, state development boards, chambers of commerce, bankers and commercial bodies, governors of the Southern states and others.

As stated by us last week the proposed homeseekers rates as suggested by the Southeastern Passenger Association are worse than the dead sea apples which turn to ashes; they are a delusion and a snare; they are wholly unworthy of the railroad officials of the South; they are discreditable;

they propose to give something when practically they give nothing. In virtually ignoring the efforts of those who are seeking to bring about the right kind of homeseekers rates, these railroad officials are sowing seed for public hostility which will inevitably react upon railroads and do them great harm.

It would seem that the experiences of the last fifteen or twenty years would have taught all railroad officials the supreme importance to their profitable operation, of public sentiment, but occasionally some of these officials seem still to be unable to understand that fact and therefore fly directly in the face of public sentiment or take action which inevitably creates hostility to all railroads. Mr. Richardson has stated the case none too strongly in his letter to Mr. Howard from which we have taken a few extracts.

AN ENGLISHMAN WHO ADMITS A GREAT TRUTH.

SOMETIMES political activities cause public men to tell a truth which otherwise they might prefer to keep to themselves. Such we think is the statement of Winston Spencer Churchill, who in a vigorous attack in Manchester against the proposed protective tariff suggested by Premier Baldwin, told some facts in regard to England's dependence upon this country for cotton which were quoted by the Associated Press as follows:

"In a vehement attack on the new policy, Mr. Churchill said nobody knew better than the members of the British Cotton Growers' Association that 'however we develop our tropical possessions we shall be compelled to buy cotton during our lifetime, and in gigantic quantities from the United States.' He added that there would be nothing but misfortune and impoverishment for Lancashire if it consented to bear the yoke of a protective system."

Without agreeing with Mr. Churchill's view as to the poverty of the Lancashire cotton spinners if Premier Baldwin's plan should be adopted, we fully agree with him that England, and all the world for that matter, will for many years to come have to depend upon the South for their chief cotton supplies.

ONE WAY TO BUILD A TOWN.

THOS. P. TURNER, Secretary of the Reidsville, N. C., Commercial & Agricultural Association, gives an interesting illustration of how the people of that community were aroused to the necessity of building more dwellings in order to encourage industrial development. The spirit shown by Reidsville could be duplicated in many other places throughout the South. In his letter Mr. Turner said:

"Knowing that you are interested in matters of this kind, I wish to cite to you an instance of recent happening that will give you an illustration of the spirit of our people.

"The hesitancy of a prospective industrial enterprise in locating here, a result of scarcity of labor and a bad housing condition, induced me to make a canvass for the construction of houses not to exceed a rental of \$25 per month. In practically less than seven hours bonafide pledges for 52 houses of this type were secured. These pledges do not represent all that could be accomplished along this line, the expression of those pledging was that additional houses would be built if necessary to secure any industry that might wish to locate here."

Every noble life leaves the fibre of it interwoven forever in the work of the world.—Ruskin.

A Broad Plan for Colonization South and for Making Land Owners Out of Farm Tenants.

SOUTH CAROLINA TAKING THE LEAD IN A SERIOUS STUDY OF A GREAT PROBLEM.

South Carolina has awakened to the importance of making a very careful study of its own situation, taking stock it might be said, and planning for its future. As an outcome of a conference of leading business men, educators and others, held in Columbia early in the year, the South Carolina Land Settlement Association was organized and the following officers were elected: Former Governor R. I. Manning, of Columbia, President; George B. Cromer, of Newberry, and David R. Coker of Hartsville, Vice Presidents; W. M. Frampton, of Charleston, Treasurer; and W. H. Mills of Clemson College, Secretary.

This association, composed of some of the very foremost men of the state, requested the legislature to appoint a commission to investigate the policies of land settlement in the West and on the Pacific Coast, and their application to South Carolina. This request was granted and the commission appointed consisted of Mr. Manning, Mr. Coker, and S. J. Derick, A. F. McKissick, T. S. Wilbur and Bright Williamson.

The commission made a careful study of the situation in South Carolina and then went West. In its illuminating report, which has recently been submitted, it showed that there are 19,500,000 acres of land in South Carolina; that in 1920 there were 5,800,000 acres under cultivation; that by 1923 this had been reduced to probably less than 5,000,000 acres, and the acreage is growing less each year. There are now fewer white farmers who live on their farms than there were in 1910, while tenancy is steadily increasing.

It was reported to the commission that 9000 white families have during the last two years moved from the farms to cotton mills and lumber camps, and many thousands of negroes have migrated. This has left a large amount of farm property uncultivated and the situation viewed from that standpoint is a very serious one for all of the ramifications of business in the state.

The best method of meeting this condition and assisting the 38,000 white families who now reside on farms as tenants to become permanent settlers through ownership, and how to sub-divide large land areas so as to make them productive and convert them into homes, constitutes the great economic problem before the state.

After traveling through twenty states the commission returned home and reported that it had a greater respect for the potential power of South Carolina's natural resources than it had when it started on this journey. It adds:

"We understand better than we ever did before what a mistake thousands of farmers of the Western States are continually making when they move to the treeless plains of the Northwest 'where they must pay 600 miles of freight on a chip that they want to throw a bird, and then must pay for a post to hold the bird up while they throw the chip.' Everything that goes to make civilization must be carted until the soil can be made to pay tribute, while in South Carolina all of these things are at our doors. The great difficulty, however, is to make the outside world believe it." "And this," they say, "can never be done except through organized effort on the part of the state with the enactment of the necessary legislation."

After reviewing its investigations through the West and on the Pacific Coast, and giving in detail some of the results of colonization enterprises carried out in several Western States and in California, the commission made a careful per-

sonal study of the land settlement operations in New Hanover county, North Carolina, which have been carried on for some years under the auspices of Mr. Hugh MacRae of Wilmington. The commission reported that it is unanimously of the opinion that land settlement can be properly carried on either by the state or by private corporations, or by persons when closely supervised by the state. It must be based upon good land, proper credit, and efficient guidance and service. It found that many countries are now engaged in land settlement and are offering advantageous terms to settlers. A table is given showing the rate of interest and the time allowed in which to pay for land under colonization systems of different countries. This is as follows:

RATE OF INTEREST AND TIME GIVEN TO PAY FOR LAND UNDER COLONIZATION SYSTEMS OF DIFFERENT COUNTRIES.

Country	Rate of Interest Per cent.	Time Given to Pay for Land or Repaying Loan, Years.
Denmark	3 to 4	65
Italy	2.5	50
Holland	4.7	
Norway	3.5 to buy land and 4 to owners	
Hungary	4	50
Austria	4 to 4.5	54 1/2
Russia	4.5 principal and int.	55 1/2
Germany	3.5 to 4	56 1/2
France	4 to 4.5	75
England	4	50
Ireland	3.5	68
Belgium	4.5	30
Switzerland	4.5	57
New Zealand	4	36 1/2
Victoria, Australia ..	4.5	36 1/2
New South Wales	3 to 5	30 to 40
Other Australian States	4 to 5	30 to 40
British and German South Africa	4	
Chile	4	33
Argentina	4	
British Columbia	1 per cent more than the interest on state bonds; 5 per cent at present.	36 1/2

A study of these figures is illuminating in showing the extremely low rate of interest which these land settlers in other countries are required to pay, and the very great length of time, extending from 30 years up to 75 years, in which to repay the loan for the purchase of the land.

It is the plan of the commission to serve first the tenant and large land owning classes of South Carolina. The hope is expressed that men with a knowledge of special phases of agriculture can be induced to settle in South Carolina, and with this thought we note it is desired to secure settlers from England, Ireland, Scotland, Denmark, Holland, Norway, Sweden, France and Germany. We question whether it will be feasible for a good many years to come to secure many settlers from foreign lands, because there is a very marked tendency in this country to limit immigration to a greater extent even than at present.

We would suggest, therefore, the wisdom of this commission concentrating its work for a long time to come upon finding a means of turning the farm tenants of South Carolina into farm owners, and giving them the opportunity to develop diversified agriculture.

We believe that the failure to develop diversified farming has been due not so much to a lack of ability on the part of the people themselves, as to a lack of opportunity which has made it impossible to find a market for their diversified products, and this has always been intensified by the inability to finance this kind of agriculture.

For too long a time the handling of farm finance in the

South, or in the cotton growing part especially, has been concentrated in the hands of those who favor cotton production to the exclusion of all other agriculture. If this condition can be eliminated and a home market created for diversified farm products, South Carolina farmers can very quickly learn how to carry on successfully every line of agriculture. They may take longer to accomplish this than the foreigners who have been especially trained in diversified farming for generation after generation, but it is worth infinitely more to the South to train its own people into diversified farming and keep them at home than it would be to bring in farmers from other countries, even if the latter were feasible. Then there are many farmers in the North and West who know nothing about raising cotton, but do know a great deal about raising grain and grasses and live stock. Many of these people are eager to get away from the death dealing climate of the bleak Northwest and the treeless regions where life at the best is a hard and grinding one.

After South Carolina has worked out the problem of taking care of its tenant farm system and the large land owning classes, made poor by having more land than they can cultivate, it should turn its attention, we think, not to foreign lands but to the people in the North and West who would gladly come South if given the opportunity to do so under favorable conditions.

The commission strongly commends the statement made by the late Dr. Knapp that "a prosperous, intelligent and contented rural population is essential to our national prosperity. The world's experience has shown that the best way to secure this is to encourage the division of all lands into small farms, each owned and operated by one family. Communities of small farms tend to promote common honesty, respect for the rights of others and for law."

In closing its lengthy and very comprehensive report the commission makes the following specific recommendations which will command attention in every state in the South, for they are all studying the same problems:

First. The enactment by the legislature of a statute modeled after the California Land Settlement Act and entitled An Act To Create the State Land Ownership Board of South Carolina. The essential features of this bill should be as follows:

1. The office should be known as the South Carolina Land Settlement Board.
2. The Board should be composed of five directors, whose term of office shall range from two to ten years from the date of appointment by the Governor.
3. The directors should not receive salary or compensation of any kind other than actual traveling expenses when attending a meeting of the directors.
4. That the directors shall employ as secretary only a man trained and experienced in the problems of land settlement and colonization.
5. That the directors shall locate the lands upon which a colony or colonies may be placed and have the direction and control of the development of same.
6. That the Board shall, upon the request of any person, firm or corporation engaged in the settlement or colonization of lands in the state, certify to the said person, firm or corporation, after proper investigation, whether or not the plan of settlement proposed is likely to be beneficial to the settler and to the best interests of the state. Such reports should be in writing and shall show, first, whether the lands to be settled are suited to the agricultural purposes intended; second, whether or not the terms of sale are just and reasonable. (In this way the settler and the state are protected.)
7. The Board shall prepare such material as will adequately set forth the resources of the state and advertise same, either alone, or with other organizations and institutions as to it may seem good.
8. That the state of South Carolina shall loan to the South Carolina Land Settlement Board a sum of \$300,000 out of the funds controlled by the Sinking Fund Commission at a rate of interest not to exceed 4-1-2 per cent and that the \$300,000 advanced by the state shall be secured by mortgages on the property purchased under such arrangement and agreement as shall be mutually determined by the officials of the

Land Settlement Board and the Sinking Fund Commission.

Second. The enactment by the legislature of a statute, modeled after the Wisconsin Land Mortgage Association Act. The essential features of the bill shall be as follows:

1. That any seven or more citizens may be incorporated as an association to issue bonds upon notes and first mortgages given by purchasers of farms in a group settlement.
2. That such association shall have not less than \$20,000 capital, paid in and unimpaired, and must establish a surplus also.
3. That the bonds issued shall be approved by the state bank examiner and the attorney general, and the notes and mortgages securing them shall be deposited with the state treasurer with deed of trust.
4. That the amount of bonds shall not at any time exceed the par value of the securities so deposited.
5. That notes and mortgages may be purchased only from persons, firms or corporations actually engaged in land settlement in South Carolina.
6. That each farm upon which a mortgage is taken, shall be first examined and approved as a good loan by the State Land Settlement Board.
7. That no mortgage shall be purchased for more than 65 per cent of the appraised value of the farm, and without provision for payment by amortization in not exceeding twenty years.

The enactment of a land mortgage association act is for the purpose of encouraging and aiding individuals and corporations to assist in developing the state's agricultural interests.

Third. To submit to the qualified electors in South Carolina the issuance of bonds to the amount of a million dollars for land settlement purposes. The essential features of the bill shall be as follows: That the matter shall be submitted at the next general election; that the funds shall constitute a revolving fund, to be loaned to the settlers at a rate of interest not greater than six per cent, and for a period of years not longer than thirty-six; that the whole principal sum shall be returned to the state with interest; that the state shall be secured by mortgages on the properties purchased for settlement by settlers.

The commission is convinced that there is nothing that the state can do that will so advertise the resources of the state, and call to the attention of the outside world that South Carolina is providing by progressive legislation to give a generous welcome to the right kind of home seekers, as the enactment into laws of the above recommendations. Such action would herald far and wide that South Carolina is taking its place along with the other great states in the march of progress. It would be the first state in the South to take such a step. Naturally, it would be the first state to secure the advantages growing out of such action.

Fine Map of Chattanooga.

A large and complete street map of Chattanooga, Tenn., and its suburbs has been published by R. J. Shutting, of that city. It has been prepared from official data, is full and accurate and meets a long felt want. It is drawn upon a liberal scale so that details are easily read and understood. In one corner of the sheet is an enlarged map of the business section of Chattanooga with prominent points designated with an index. On the other end of the map sheet is a list of suburbs, communities and points of interest within and adjacent to the city and also the names and numbers of the various street railway lines. Following these is a street directory of about two columns and a half.

Chickamauga Park, Lookout Mountain, Missionary Ridge and the North Chattanooga sections are also mapped in their respective positions in relation to the city. It is a most comprehensive publication valuable to every one interested in Chattanooga.

America Making Highest Quality of Potash.

GERMAN MONOPOLY FOREVER DEAD.

Germany's grip on the potash monopoly has been definitely broken by America and France, according to leaders in the American Chemical Society, who in a survey of the progress of this industry since the World War assert that the United States has finally emerged as a potash producing country.

Potash meeting the nation's agricultural need for purity is being made, and federal and state experiments to ascertain how far borax, inherent in American potash, is beneficial to crops are under way. These tests, it is declared, are of vast economic importance.

An American investigation of French potash activity in Alsace shows, the statement said, marked advances both in business management and technical skill. The United States, it was stated, is producing potash superior to that of other nations, and at a cost far lower than during the war. Americans are now buying up their own potash production before purchasing abroad.

The attitude of American chemistry toward German competition was summed up by Dr. John E. Teeple of New York, treasurer of the American Chemical Society, who said:

"Both French and American production of potash are here, and here permanently. There is no longer a German monopoly. Germany can be entirely shut off and the world can be supplied from other sources. The assertion of Germany's ability to starve any part of the world, or feed any part of the world she chooses, is now only an empty boast, as the world can now entirely feed itself without the help of her potash."

The people of this country, declared Dr. Teeple, should understand that in quality American potash is now second to none. "Yet there are those who prefer to encourage the potash production of Europe rather than that of the United States," he continued, "and these critics have made great use of various statements published in the past on the toxic influence of borax in fertilizers, since the first potash put upon the market from Searles Lake did contain a somewhat larger percentage of borax than experience has since proved to be desirable."

"Research has made it possible to remove this excess borax from American potash, our post-war experience now clearly showing that small quantities of borax are not only not harmful to plant growth but in some cases have even been found beneficial."

"Experiments conducted on the Aroostook farm of the Maine Agricultural Experiment Station at Presque Isle, Me., show that the application of one, two and three pounds of borax per acre apparently stimulated plant growth, and the yields were increased."

"Experiments conducted by the United States Department of Agriculture show that the yield of lima beans was progressively increased by the application of the same quantities of borax."

"There is no doubt that if borax were present in large quantities it would act as a poison, but in the potash now being produced there is not sufficient borax to produce a toxic influence. It should be remembered that almost every poison is a stimulant when used within narrow limits."

"American potash production having reached the stage where danger is eliminated, the question now is: 'How much borax can be used to advantage as a stimulant?' Upon the answer depends whether or not we shall ask our potash producers to leave a greater quantity of borax in the potash so as to stimulate crops. Far reaching economic results are involved in this situation."

"Potash production arose in this country as a war time industry. During the war there was no complaint as to quality. After hostilities had ceased, and German potash began coming in, the situation was different, sharp and ungenerous criticism being probably fostered by Germany, the objectors charging the existence of harmful impurities in American potash due to an excess of borax."

"After investigation, the Department of Agriculture set a limit of two pounds of borax to the acre as being entirely safe for crops. On account of the research work that had been done, it was easy for American producers to meet this requirement. Further, in freeing potash from borax, the latter has been developed as a valuable by-product. It is in the interest of the manufacturer to remove the borax because of the favorable market which it commands, bringing a price of two and a half times as great per pound as potash."

"In 1915, the first year in which the United States made potash in sufficient quantities to be recorded, the output was about 1000 tons of pure potash. Now, despite the post-war slump, the production is about 30,000 tons annually. Potash production in the United States reached the peak in 1918, when 54,000 tons were manufactured. And this progress has been made despite the fact that of the 128 producers in 1919 but one is left whose main product is potash, the remainder of the American supply being by-product. This single concern, principally English-owned, is now operating successfully at Searles Lake, California."

"Potash is one of the few commodities that is cheaper now than it was during the war. One of the most encouraging features of the present situation is that this is the first year in which American buyers took up all the domestic supply before buying abroad. The United States now uses about 250,000 tons of potash per year. Of this total, about ten per cent is produced at home. Potash is now worth about \$60 a ton. During the war it brought from \$300 to \$400 and over per ton."

"As to potash production, it cannot be stated too strongly that in quality the United States is ahead of other nations. These three points should be stressed: First, American potash contains only very slight quantities of borax; second, since potash is but one of the ingredients in mixed fertilizers, it is only a mere trace of borax that will be found per acre; third, such small quantities are not only safe but actually stimulating to certain crops in some instances."

Dr. Teeple recently investigated the potash industry of Alsace and he speaks optimistically of its development. The Alsatian industry, he said, was well managed by competent business and technical men whose equipment for production has been very rapidly and thoroughly improved.

Alsace, according to Dr. Teeple, is now producing over 300,000 tons of potash per year, and at two months' notice can increase this amount to 500,000 tons, providing a market for so much is available.

"How important this is," explained Dr. Teeple, "will be realized when we remember that the total consumption of potash in the world, outside of Germany, has probably never materially exceeded 500,000 tons per year, and very likely has never reached that figure, with the possible exception of 1913 and 1922. These figures mean that the German potash monopoly which existed since about 1860 no longer exists, and, as far as quantity is concerned, if Germany were again shut off from the world, the world would not necessarily be lacking its full quota of potash."

DOMINATING THE OIL INDUSTRY.

The South's Strong Position in Producing and Refining Oil Interests.

By GRADY TRIPLETT, Houston, Tex.

In both the production and the refining of petroleum, the Southern states hold a dominating position over any other section of the country. Daily crude oil production for the fields of the United States November 15 was 2,250,000 and wells in Oklahoma, Texas, Louisiana, Arkansas and Kentucky were supplying 1,175,000 barrels of that total.

While the South does not have quite half the refining capacity of the whole country, its 1,022,650 barrels of daily refining capacity runs very close to the half way mark of 2,147,650 barrels of still capacity in the United States. In addition to the states listed above, this Southern refining capacity is centered in Maryland, South Carolina, Georgia and Tennessee.

Even in prospective petroleum reserves, the Southern states overshadow the remainder of the country. The United States Geological Survey, working with the American Association of Petroleum Geologists, placed the petroleum reserves of the United States at 9,150,000,000 barrels, of which 4,285,000,000 were credited to the Southern states. These estimates were made public in January 1922 and have since been the subject for controversy.

Development in the two years since publication of the estimate is bearing in the direction that the total was placed too low. The accuracy of the estimate, however, is something that will have to be determined by drilling. It is from this required field development, with consequent facilities for transporting and refining the crude oil, that the South should maintain its position in the petroleum affairs of the United States.

Using the figures of the Geological Survey as a basis, it is the coastal section of Texas and Louisiana that will draw the oil development over the next 20 years in the United States. In this area, roughly described as lying between New Orleans, La., and Corpus Christi, Tex., there is awaiting development 2,150,000,000 barrels of crude oil. This is almost one-fourth of the unmined reserves of the country, according to the estimates of the geological experts.

Elsewhere in Texas, the reserves are 675,000,000; Louisiana and Arkansas have yet 525,000,000 barrels of oil awaiting development; while Oklahoma, the state that has produced more oil than any other, has petroleum resources of 1,340,000,000. The remainder of the petroleum reserves of the South are given to Kentucky, Tennessee and Mississippi, 175,000,000 barrels. Kentucky has small production at present, while that of Tennessee is negligible. Mississippi is yet to enter the ranks of oil producing states.

At present drilling is being done in Georgia and Florida, states not listed as having oil reserves when the geologists compiled data for their estimates.

It is the proximity of the present coastal fields of Texas and Louisiana with their future possibilities that has been responsible for the development of the refining centers at Beaumont and Port Arthur, Tex., as well as along the Houston Ship Channel. Refining plants in the Beaumont-Port Arthur district can refine 150,000 barrels of crude oil daily. The district is served by three trunk pipe lines, reaching into Kansas and traversing the light oil districts of Oklahoma and North Texas. The Houston district has two trunk pipe lines, extending only to North Texas but its refineries take care of most of the production of the lubricating oils from coastal crudes.

With the completion of the building program of the Sinclair Pipe Line company, the plant of the Sinclair Refining company on the Houston Ship Channel will be connected with

the oil fields of Wyoming. And the expansion of the Sinclair plant provides for the running of crude oil from Teapot Dome and Salt Creek for refining at the Texas coastal point.

Another refining center exists along the Mississippi river, extending up to Baton Rouge, where the big plant of the Standard Oil company of Louisiana is located. These plants on the Mississippi run Mexican oil, with the exception of the one at Baton Rouge, which has pipe line connection with the North Louisiana and Arkansas field, as well as those of Oklahoma.

In fact the plants of the two Texas coastal refining centers receive scores of cargoes of Mexican crude oil by tankers across the Gulf of Mexico. When "cracked" this Mexican oil yields gasoline as well as fuel oil and asphalt products.

The three Gulf ports, having petroleum facilities, are export points for finished oils. Motor fuel, kerosene, gas oil, fuel oil and lubricants from the refining plants of the coast as well as the interior centers are loaded on tankers for Europe.

It is the existence of water facilities near the oil deposits of the South, that has in the past five years turned the trend of petroleum shipments toward the Gulf ports. The coastal outlet gives a shorter haul by pipe line, with shipping and refining facilities being provided to take care of the increasing flow of oil southward. Within the past four years, three trunk pipe lines have been built from the fields of North Texas to tidewater on the Texas coast. One of these, the Sinclair, will through other Sinclair lines connect with the Wyoming and Mid-Continent fields.

While this building has been in progress, there has been no building of lines to the Atlantic seaboard from the Mid-Continent. Many of the refining concerns at Atlantic ports now transport crude oil by pipe lines to Gulf ports and then by tankers to the Atlantic seaboard.

Immigration Conference to Be Held.

A national immigration conference, the first gathering of this kind, is to be held at the Hotel Astor in New York on December 13 and 14 and the attendance is expected to include leading men representing industry, commerce, finance, government; in fact, the general public.

The call for the conference was sent out November 19 by the National Industrial Conference Board, of New York. There will be an open discussion of the entire immigration question in view of the fact that the Congress will have to determine upon a law to succeed the present immigration act which limits the percentage of immigrants, but it is announced that, in order to have free discussion, without committing anyone, there will not be any motion entertained or formal vote taken in the conference on any of the questions discussed. Instead a complete report of everything said will be made and published.

Among the matters on the program for discussion are the following: "Shall the percentum act which expires June 30 next be retained? Shall it be amended as to its administration and as to its percentage restrictions? Shall it be succeeded by a new law, and if so, what kind of restrictions shall be imposed? Shall special laws be made to better select, distribute and assimilate immigrants? Shall a commission be appointed to investigate and report on the general subject of immigration?"

\$300,000 High School Planned at Monroe.

Monroe, La.—The Ouachita Parish Board of Education plans the erection of a \$300,000 high school building. One unit will be completed by September 1 of next year and similar units will be added as needed. A three-story fireproof structure with 20 to 25 rooms is contemplated.

American Business Experiences a Hundred Years Ago.

THE RECORD OF TRADE CONDITIONS, COMMODITY PRICES AND WAGES, DURING AN OLDER WAR BOOM AND POST-WAR DEPRESSION, WITH LESSONS FOR TODAY.

By EDWIN C. ECKEL, Washington.

Number 4.

(Continued from last week's issue.)

The Course of Trade.

The crisis of 1816-1819 had cleared the air, though at the cost of heavy losses, and trade slowly took on a new growth, both in America and in Europe. In most lines of industry and in most countries this growth was, however, very slow and very uncertain. In England alone it ran, owing to special circumstances, into a short period of excessive activity, a boom, and a collapse of credit as early as 1825. This English boom and the panic of 1825, which did not markedly affect the course of business affairs in the United States except in the cotton market, were determined entirely by South American speculations. The freedom of the former Spanish colonies, from Mexico to Argentina, had attracted the attention of traders to the fancied opportunities which the new Latin American republics offered. As to the way in which these opportunities were envisaged by the business men of England, Hyndman* has put the situation clearly:

"Canning had called in the New World to redress the balance of the Old; and English loan-mongers, merchants and promoters put their own interpretation on the epigram. All considerations of geography, climate, native character and disposition were thrown to the winds. Money was to be lent at good interest, merchandise was to be shipped to large profit, mines were to be opened to pay an unheard-of percentage in countries concerning which little or nothing was known to the majority of the speculators. Warming pans were shipped to cities well within the tropics, and Sheffield carefully provided skaters with the means of enjoying their favorite exercise in regions where ice had never been seen. The best glass and porcelain were thoughtfully provided for naked savages, who had hitherto found horns and cocoanut shells quite hollow enough to hold all the drink they wanted. One company was formed to provide the inhabitants of the River Plate with fresh butter, at a time when none but the wildest of wild cattle could be found from the Atlantic Ocean to the Andes; and a tribe of luckless Scotch dairymaids was shipped to Buenos Ayres, to milk cattle a trifle more savage than the Gaucho cowboys who herded them. Similar absurd blunders, sometimes with tragic results alike for the unfortunate investors as well as for the deluded emigrants, were of everyday occurrence."

Land companies, mining companies—all sorts of South American and Mexican speculations—these during 1824 and 1825 finally absorbed all the free British capital, and at the first touch of doubt the entire structure toppled.

American business had, as has been noted, been little involved in the British boom of 1824 and its subsequent collapse, though the cotton market had taken some share in both movements. Within a few years world trade again commenced growth, and from 1830 or 1832 onward signs of great activity became more numerous. This time the activity was overdone in America, and its chief feature was a western land speculation. The usual payment for the financial debacle, an irregular collapse from 1836 to 1839, was likewise more notable in America than elsewhere. Succeeding the financial crisis was, as usual, a period of depression, lasting

in this country until around 1843, during which period the low prices of the century, to that date, were reached.

Canals and Their Effects.

Reference has been made, though only incidentally, to the influences which tended to center American attention upon canal transportation during the early part of the century. There were indeed certain canals constructed during even that earliest period, and two of these have been noted casually in connection with the discussion of wages and commodity costs. But for convenience, discussion of the greater series of American canals has been deferred to the present place.

In considering the broad problem of securing cheap trans-Alleghany transport, certain topographic and trade features had first to be taken into account. The westward migration was tending northwest rather than southwest, for one thing; it was filling up the Ohio and Illinois region much faster than it was occupying the area farther south. Trade as well as political reasons, therefore, pointed out the greater desirability of connecting points on the northern seaboard with points on the Lakes and on the upper Ohio drainage. Topographically two broad solutions were possible, and both of these were taken up in fact. The Alleghany elevation might be flanked, the new transport route passing round its northern end—and this solution implied the construction of the Erie Canal, and later of the New York Central Railroad. Or the mountains might be crossed at some low divide, starting from some point on the upper waters of the James, Potomac, Susquehanna or Delaware rivers. All these routes were in fact followed by canals; and only a little later by railroads.

Of this greater series of American canals, the Erie was the first to be undertaken, the first to reach completion, and the first to establish its financial success. Its influence upon public opinion was therefore very marked.

The Growth of the Coal Trade.

It is in this period following the Napoleonic Wars that we first find American coal mining becoming of obvious and definite importance, so that travellers and legislators mention it in more than casual fashion. For this growth there were many factors responsible, of which the more important may be briefly noted here:

(a) The country was at last adopting the steam-engine and steam-driven machinery in a large way, increasing the demand for coal everywhere.

(b) Canals were built, in part to meet this very demand by furnishing cheaper and more reliable transport than had been hitherto available.

(c) The spread of population westward and southward, and the opening of various Indian lands, offered new markets and opened new coal fields for operation.

(d) Finally, the coming of the railroad both gave better transport for coal, and increased the demand for it, both directly (as rail fuel) and indirectly (as blast-furnace fuel). The latter factor came into operation in the decade or two following the period we are now discussing in a very marked way.

It will be seen that the various factors outlined above acted

*Hyndman, H. M. Commercial Crisis of the 19th Century, London, 1892. p. 30-31.

and reacted, one on the other, in complicated fashion; but the net result was always increased demand for coal and better facilities for supplying that demand.

The American Iron Trade Expands.

The period which we are now discussing opened with iron production in the United States at a very low point indeed, for the reaction from the war-boom had been naturally very marked in this particular industry. At the height of war prosperity we have seen in 1814 an American furnace output of some eighty thousand tons; the census of 1820 showed that this had fallen off to twenty thousand tons. Compared with the nations which were later to be defeated competitors, this was a very bad showing. For in 1820 there was a total world output of iron of around 900 thousand tons. Great Britain led, of course, with almost half of the total—some 400 thousand tons. Following her, though at a distance, came in order France, Russia, Germany, Sweden, Belgium, Austria—and the United States.

It is well to recall that this state of things existed as late as 1820, for from that date on America gained so rapidly that her humble beginning may easily be forgotten. Within twenty years the 20 thousand ton output of 1820 had risen to the 300 thousand ton output of the years just before the "Hard Times" of 1837-1842; and America had risen to third rank, close behind France. In 1820 the United States was making 1-45 of the world's iron; in 1840 she was making one-ninth. The country was becoming industrialized at last, and the change was affecting the iron industry only a little less strikingly than it did the coal trade.

Technically the period is marked by very extensive experiments along lines of improved furnace and mill practice, and by the rather slow adoption of some of the great improvements that the British had worked out at earlier dates. As regards this last point, perusal of the little table which follows is recommended—as an antidote to possible Chauvinism:

Process	England	America
Crucible steel made.....	1740	1832
Coke first used as furnace fuel.....	1735	1837
Coke generally adopted.....	1780	1865
Puddling process introduced.....	1783	1817
Rolls first used in mills.....	1783	1817
Hot blast adopted in furnace.....	1828	1834

Of the improvements above listed, few were so generally adopted during the period 1819-1837 as to have any serious immediate effect on the American iron industry, but all of them were sufficiently well received to have important influences on the iron trade in the period succeeding the "Hard Times." Of them all, the use of the hot blast gave immediate returns in the way of cheaper pig-iron; and it consequently spread most rapidly. The use of coke would make possible higher furnaces and heavily increased output; it would also affect furnace location: these effects would appear at a later period.

In addition to the adoption of foreign improvements, American practice took up experimental work along its own lines, and toward the very close of the period we are now considering it was found possible to use anthracite coal in the blast furnace. This led to a very rapid growth of blast-furnace centers in eastern Pennsylvania and other areas tributary to the anthracite fields; such centres as Steelton and Bethlehem practically date from this discovery.

With the building of the first railroad, new possibilities were opened to the iron industry, and from 1832 onward more and more attention was paid to railroad iron of various sorts.

Wages, Prices and Living Conditions.

Stratford Canning, then Minister to the United States, has left data which gives an excellent idea, not merely of the general price level at the moment, but of the fall in prices and wages which had occurred since 1816. For example, he

notes at Hagerstown, Md., as of November 16, 1822, the following comparisons in these regards:*

Labor in the fields....	1816 \$16	per month, exclusive of board
	1822 8	" " " " " "
Mechanic's labor.....	1816 2	per diem, board included
	1822 1½	" " " " " "
Flour, per bbl., 196 lbs.	1816 10.50	
	1822 5.00	
Meat, per lb.....	1816 8 cents	
	1822 5 cents	

"Land has fallen amazingly and beyond all calculation—generally more than one half. A farm which was worth \$114 an acre in 1816 was sold in 1822 for \$45 an acre."

At Niagara, on the Canadian side of the frontier, Canning found prices as follows: Butcher's meat was at 4 to 5 cents a pound; best flour \$3 per barrel; oats 20 cents a bushel; whiskey 30 cents a gallon exclusive of duty from the U. S., which was 50 cents; indoor labor with board and lodging \$8 per month; a good milch cow \$12 to \$15; a farm horse \$50. Prices had fallen there heavily since the war.

Another interesting suggestion as to the low cost of living, during this period of depression, is afforded by the actual costs of Army supplies at the remote American post of Saulte Ste Marie. On this point we have available a certificate† by the quartermaster there, dated in October, 1822, stating the following average costs over that year:

	Cents
Pork, per lb.....	4.25
Fresh beef, per lb.....	6.50
Flour, per lb.....	1.90
Beans, per qt.....	4.70
Vinegar, per gal.....	22.
Whiskey, per gal.....	29.
Salt, per bus.....	90.
Soap, per lb.....	10.
Candles, per lb.....	20.50

"The total cost of a soldier's ration is nine cents and one mill per diem."

An excellent example of the wide spread in prices of necessary commodities, even within a single state, due to local lack of production and to general deficiencies in cheap transport, is afforded by the following comparison of prices current at various towns in Ohio during the summer of 1816. This table‡ shows how difficult it is to make very broad statements as to American prices and wages at any early period, unless care be taken to eliminate the effects of such purely local variations.

PRICES CURRENT IN OHIO TOWNS, 1816

	Corn bu.	Flour bbl.	Bacon lb.	Butter lb.	Eggs doz.	Fresh Meat lb.
Chillicothe	\$0.25	\$4.25	\$0.10	\$.....	\$.....	\$0.05
Circleville	0.25	4.25	0.10	0.08	0.06¼	0.04½
Columbus	0.33½	5.00	0.12½	6.10	0.08	0.05½
Worthington .....	.....	.....	0.12½	0.12½	.....	.....
Delaware	0.75	10.00	0.18¾	.....	.....	.....
Upper Sandusky	1.00	12.00	0.25	.....	.....	.....
Lower Sandusky	1.25	15.00	0.31	.....	.....	.....

*Life of Rt. Hon. Stratford Canning, Vol. I, p. 334. London, 1888.

†Niles Register, Vol. X, p. 336; quoted from *Ohio Monitor*.

(To be continued)

Crude Oil Survey of Principal Fields.

The purpose of the crude oil survey being conducted at the Bartlesville, Okla., experiment station of the Bureau of Mines is to analyze crude oils from every field of commercial importance in the United States and foreign countries and to publish the results. The value of this work lies chiefly in the methods in which the analyses are made, every oil being run in a similar manner so that the analyses of the various oils are comparable. Thus a Pennsylvania crude oil, for example, may be compared with a Rocky Mountain crude or with a crude from Egypt. All fields in the United States, excepting the California fields, have been reported upon. During the coming fiscal year it is planned to complete the analyses of California crudes, as well as of foreign crudes, all of which have been received excepting samples from Russia.

What the Open Shop Means to the Twin Cities Minneapolis and St. Paul.

TRAINING SCHOOL FOR MEN IN THE BUILDING TRADES—SUCCESS BASED UPON FAIR TREATMENT AND GOOD WAGES TO EMPLOYEES.

By O. P. BRIGGS, President the Citizens Alliance of Minneapolis.

In commenting upon the conditions prevailing in this community with relation to the Open Shop, it is necessary to make reference to natural conditions. Minneapolis started as a manufacturing city because of its location on St. Anthony Falls, a water power of approximately 100,000 h. p. The founders of the town were mostly eastern people, who came here on account of the tremendous possibilities of this undeveloped territory—agricultural, lumber and mineral—and they used the water power to develop these resources. During the period from 1875 to 1890, the manufacturing industries developed very rapidly.

Coincident with this period of development came trade unionism of the English type. The New England manufacturers, who were heavily interested in Minneapolis, were well informed upon what this form of unionism meant; namely, the limitation of production. They were convinced that if this form of unionism prevailed in this community, it would not prosper, either from the viewpoint of the manufacturer or from that of the working man. For this reason, they grouped together and, to a great extent, were successful in defeating its introduction here.

About 1900, unionism succeeded in gaining a foothold in a large number of small but thriving industries, especially machine shops and foundries. This caused the strongest men of this community to more thoroughly unify their efforts, and resulted in the organization of what is now known as the Citizens Alliance of Minneapolis, which took concrete form in 1903. From that date until the present time, it has functioned continually, and, through its efforts, this town has been kept open shop.

St. Paul being largely a commercial rather than a manufacturing city, had paid very little attention to the question of the open or closed shop, and up to this time only the machine shops and foundries of the two cities had cooperated on the problem.

Remembering that Minneapolis is a new city, having grown from practically nothing to over 450,000 population since the Civil War, it is plainly to be seen that it was the pioneer in the West in fostering and maintaining the Open Shop which, in recent years, has come to be known as the American Plan.

Subsequent to the failure of the unions with the manufacturing industries, and because of a very large amount of building construction in Minneapolis, the building trades unions became very active, and succeeded to a large extent. In 1920 one of our best contractors was constructing a big job, when it was struck, the sole issue being the open or closed shop. There was no question of wages or hours involved. The unions were defeated. Immediately there followed a more aggressive effort on the part of contractors and investors to fully maintain the Open Shop or American Plan in the building trades, as well as in all others.

Coincident with this condition in Minneapolis, the city of St. Paul became very much aroused, having found themselves almost completely unionized. They immediately investigated the Minneapolis plan thoroughly, which resulted in the Citizens Alliance of Minneapolis cooperating with them to the greatest extreme until a Citizens Alliance of St. Paul was organized on the Minneapolis plan.

A similar association was also organized in Duluth by the Citizens Alliance of Minneapolis, as well as in a number of other localities in Minnesota and other states.

About that time, at the instigation of the Minneapolis association, the contractors of the three cities—Minneapolis, St. Paul and Duluth—organized the Minnesota Building Employers' Association. It was organized at a time when business was being deflated, and, after carefully weighing the interests of the community, they decreased the wages of the building mechanics and laborers about 20 per cent. The following year, the contractors could have made a further reduction, but did not. Instead, they appealed to the working men, complimented them upon the manner in which they had taken their reduction in wages the year before, and asked them to continue to do the best they could to assist the contractors, in which event, they hoped to go through the season of 1922 without any reduction. No reduction was made in 1922. In January, 1923, this association of contractors voluntarily raised the wages approximately 10 per cent. This was at a time when the wage question had not even been discussed by the unions. This action on the part of the contractors appealed to the working men so strongly that they themselves decided that their interests were better protected by dealing direct with the employers than they were by dealing through the unions.

Training Men.

During the period of greatest unrest in the building trades, the unions' limitation of apprentices was felt most pronouncedly. In all the building crafts here, as well as in all other parts of the country, the most disastrous result was shown in the bricklaying trade. While we were dealing with the bricklayers' union, by actual count there were only 13 apprentices being trained, and without doubt twice that number of journeymen bricklayers were dying every year. The acuteness of the situation and the impossibility of securing bricklayers from other localities caused our people to start a training school, as well as to individually train all the boys they could on the open shop jobs.

This bricklayers' school was started in March, 1921, by the Twin Cities. The first six months it was difficult to secure young men to learn this trade, but as soon as it became known that a boy could progress in this school as fast as he showed the ability and the disposition to acquire the necessary skill, and was able to learn the trade of ordinary bricklaying in a very few months, many boys were encouraged to join. As a result there were more applications than the school could accommodate, and from that time on there has been a waiting list.

We believe this was the first bricklayers' school of its kind started in the United States, and from it has grown a large number of similar schools in different parts of the country.

Employers of plasterers, painters, plumbers, printers and other crafts have adopted this plan in the Twin Cities with marked success.

It has been proved conclusively that the only way to secure good mechanics is for every industrial center to select boys from its own community and educate them, rather than to attempt to secure them from other cities.

Employment Relations.

The most significant phase of this whole Open Shop or American Plan situation in the Twin Cities is found in the fact that the employers treat their employees fairly and deal with them directly, not through the instrumentality of any

outsider. To solve the question with any degree of permanency, there is just one way to do it, and that is through the medium of the working men themselves.

To help toward this end, five years ago the Citizens Alliance of Minneapolis established a free employment office, in the hope that it might form a connecting link between employer and employee and provide a place where men could come and secure jobs without cost to them, and where an employer could secure men without cost to him. It has been in operation nearly five years and is a real center for the man out of work to secure a job without having to chase all over town to find one. This employment office is in charge of men who are extremely sympathetic with labor, and the benefits resulting from it are beyond calculation. The success of the work is so great that we are now compelled to triple our capacity and are forced to consider the establishment of a women's department. Experience has convinced us it is the very best known means of maintaining harmonious relations between employer and employee.

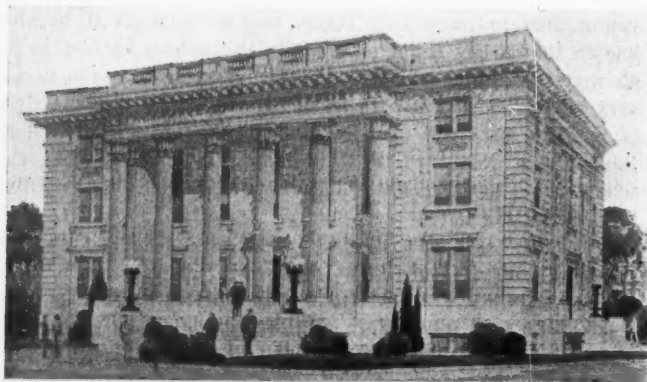
Following the Minneapolis lead, St. Paul and other localities have established similar free employment offices.

Numerous public and private investigators concede that the working men of the Twin Cities are as happy and contented, as well paid, well housed and thrifty, as the working people in any community in the United States. This prosperous and thrifty condition is further indicated by information just given out that, of all the cities of the United States, Minneapolis stands third in the amount of school children's savings deposits.

The prosperity of these two cities is due to the fact that the Open Shop has prevailed in the city of Minneapolis from the time it was founded, and that our sister city of St. Paul later followed our example, with signal success.

\$250,000 Courthouse for Alamance County, North Carolina.

Construction is progressing on the new courthouse being erected at Graham, North Carolina, for Alamance County at a cost of about \$250,000. The building will be three stories and basement, 100 by 57 feet, reinforced concrete and steel, the exterior to be faced with granite and terra cotta. The design is a classical style of architecture, the scheme having



COURTHOUSE UNDER CONSTRUCTION AT GRAHAM, N. C.

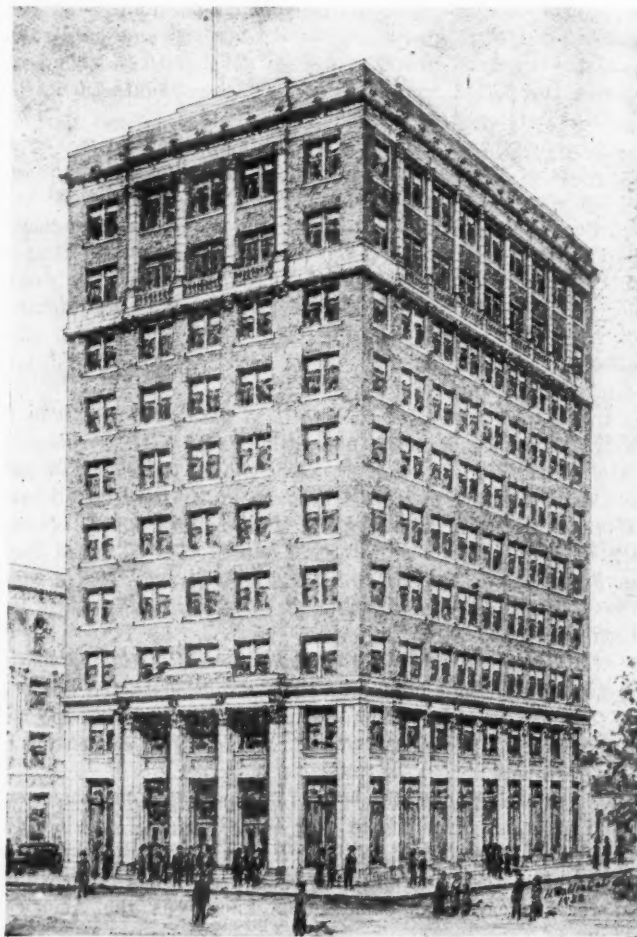
been studied with the express purpose of combining utility of plan with beauty of design. The basement will be devoted to record rooms, the first floor to offices, the second to the court room and judges' and jury rooms, and the third to a large cell for prisoners and office rooms. The floors will be of concrete, composition and tile, and the roof of composition.

Harry Barton of Greensboro, N. C., is the architect. Contracts have been awarded as follows: North Eastern Con-

struction Co., Charlotte, general contract; Kirkman Plumbing & Heating Co., Burlington, N. C., plumbing and heating, and the Walker Plumbing & Electric Co. of Greensboro, electrical equipment.

New \$500,000 Office Building for Savannah.

A ten-story office building to cost about \$500,000 will soon be under construction at Savannah, Ga., for the Realty Investment Co. Plans for the structure are being prepared by Henrik Wallin of Savannah and G. Lloyd Freacher of Augusta, contract to be awarded in the near future. The building will be of the classic renaissance type of architecture, 60 by 100 feet, of reinforced concrete with a stone base



10-STORY REALTY INVESTMENT BUILDING AT SAVANNAH TO COST \$500,000.

and upper stories of face brick. It will have concrete, tile and hardwood floors and metal ceilings, and will be equipped with a vapor-vacuum system of heating. Two elevators will be installed.

The Realty Investment Co. is being promoted by W. H. Stillwell of Savannah and the building will be financed for the most part by G. L. Miller & Co. of Atlanta. The Citizens & Southern Co. will probably occupy the entire first floor.

To Begin Construction on \$400,000 Hotel Addition.

Construction will begin soon on the \$400,000 addition to the Emerson Hotel, Baltimore, as recently announced by William H. Parker, managing director. Plans and specifications have been prepared by William G. Beecher, architect. The structure will be of the same general architectural design as the present hotel building. A banquet hall to seat 600 persons will be provided and a ballroom 40 by 102 feet will be on the top floor.

Reforestation Hearing of United States Senate Committee.

By JOSEPH HYDE PRATT, State Geologist.

Asheville, N. C., November 17.

Reforestation was the general theme of discussion at the United States Senate hearing in Asheville, N. C., November 15 and 16. The Senators expressed their gratification that the people did not seem to expect the Federal Government to do all the work along this line, but were ready to assist and co-operate in every way possible to bring about a workable plan of reforestation which should be participated in by the Federal Government, the states and the individual owner of forest land. It was conceded that protection of forests from fire was the first prerequisite in any plan for reforestation, and therefore considerable time was given to the discussion of this subject.

As reforestation is a triangular problem, it seemed to be the consensus of opinion of the committee and witnesses that the cost of protecting the forests from fire should be borne partly by the private owner, partly by the state and partly by the Federal Government. The suggested proposal of the distribution of this cost of 25 per cent by the Federal Government, 25 per cent by the state and 50 per cent by the private owner seemed to meet with general approval.

Similar hearings of this committee have been held in Florida and Louisiana, in the Pacific Coast States, in Michigan and in New England.

The members of the committee present at the hearing at Asheville were: Senators Charles L. McNary of Oregon, Chairman; George H. Moses of New Hampshire, and Duncan U. Fletcher of Florida and Mr. W. L. Hill, Secretary to the Committee. Col. W. B. Greeley, Forester of the United States, accompanied the committee, taking an active part in the proceedings. Mr. E. P. Allen of Washington, representative of the National Lumber Manufacturers Association, also accompanied the committee.

The hearing at Asheville was for the benefit of the hardwood region of the Southern Appalachian region, and was participated in by representatives from Virginia, West Virginia, North Carolina, South Carolina, Georgia and Tennessee. The subjects discussed related not only to problems directly connected with this hardwood region, but also to problems of nation-wide importance, such as taxation of land that is growing trees; classification of land; extending the area of National forests; larger appropriations for co-operation of the Federal Government with the several states in the protection of forests from fire; scarcity of timber; and reforestation. All these subjects have a direct bearing on reforestation.

All the witnesses before the committee were practically in accord that there is beginning to be a scarcity of forest products in the Southern Appalachian region; and that it was possible to conserve and reproduce the desired species of timber trees in the forests of the Southern Appalachian States, and thus prevent this scarcity of forest products; but that it can only be done by the states passing the necessary legislation and providing the necessary funds which will enable the forested areas of the several states to be adequately protected from fire.

It will also be necessary to pass such legislation as will be required to make it possible for the private owner of timber land to hold, improve and protect his forest crop, without at the same time his being taxed on his trees and land at a rate which will force him to ruthless exploitation or abandonment of his project. It means land classification, and a specific tax on land growing timber to be followed by a severance or yield tax on the mature timber crop when cut or harvested. This is unquestionably fundamental to reforestation, and must be followed by effective but not prohibitive regulations

relating to method of logging, leaving of seed trees, disposal of slash, etc.

While a fine beginning has been made by several of the states toward effective forest conservation and the educational campaign showing the absolute necessity of maintaining a certain definite area of land in forests that are growing a crop of timber is now producing results in an active public enthusiasm and desire for co-operation, it is yet only the beginning of a tremendous undertaking. Several states, as South Carolina, Florida and Mississippi, have as yet taken no state action in this important matter.

Another subject that was very fully discussed and brought forth many questions from the members of the committee was the desirability of increasing the area of the National forests in the Southern Appalachian region. Almost without exception the witnesses were emphatic in their approval of the Federal Government continuing the purchase of forest lands in the Southern Appalachian mountains; and also that the states should purchase cutover areas in the Piedmont and Coastal Plains regions of these states, as state forests.

The need of making these forests available to the people of the country by the construction of good roads through these forests was very forcibly brought out by Mrs. George W. Vanderbilt of Biltmore, N. C., in speaking of Pisgah National Forest and the difficulty of access to and through this forest, which is perhaps the most noted and prominent of all the National forests in the eastern United States. The members of the committee were very much impressed with her testimony.

A new phase in the discussion was opened up by A. B. Brooks, Chief Game Protector of West Virginia, who discussed the necessity of adequate forested areas for the protection of game and fish. Outside of a few relatively unimportant species all game requires a forest area of considerable size. The larger game birds and animals will not live in a ten-acre or a hundred-acre tract; they must have more room. The character of the forest is as important as its size. It must contain nut-bearing and fruit-bearing trees for food production and thickets of rhododendrons or other thick growth in which the game can seek shelter and hide. Fish life is also very much affected by the removal of the forests. Mr. Brooks also pointed out the effect of forest fires on game and all wild life, and emphasized to the committee that the requirements of game and fish life call for permanent and well protected forests containing a certain percentage of trees that have reached maturity.

The need of the protection and conservation of forested areas on the headwaters of the streams on which are developed and undeveloped water powers was alluded to by several of the witnesses.

While none of the committee expressed themselves officially, they did give the impression that the results of their work would be a recommendation to Congress for increased appropriations for the purchase under the Weeks Law of additional areas for National forests; for the protection of forests from fire in co-operation with the states; and for construction of roads through these forests so that they will be more available for recreational purposes.

\$500,000 Stadium Planned for University.

Morgantown, W. Va.—West Virginia University plans the erection of a stadium to seat 30,000 persons, at an estimated cost of \$500,000. It will be built, according to present plans, with one deck with provisions for a second deck that will increase the seating capacity to 45,000.

Tentative plans have been prepared by Gavin Harden, civil engineer, New York City.

ARKANSAS TRAVELING EXHIBIT.

Special Train Tours Eastern Cities With Impressive Display of State's Natural and Other Resources.

The state of Arkansas, through the Arkansas Traveling Exposition in a two weeks' tour of Eastern cities on a special train carrying a comprehensive display of its industries and natural resources, is placing its sample case before the various sections of the country with a view to "selling" Arkansas to outsiders. But more than these exhibits, which filled three cars, and besides those persons especially selected to attend them at the various stops, there were 116 men and women from Arkansas who, according to sponsors of the movement, had been brought along to get a vision of greater opportunities, return "sold" on their own state and determined to do their utmost for its material advancement through encouraging the utilization to the fullest extent of its largely undeveloped natural resources.

"If we do nothing more than to stir to greater efforts our own people through showing them the agricultural, industrial and commercial accomplishments of other states, this trip will have been well worth while," said Walker Powell, president of the Arkansas Central Power Co., of Little Rock, and one of the leaders in the movement. "We believe in Arkansas as a state of manifold opportunities. We have abundant natural resources, agriculture is of prime importance, manufacturing on a big scale is under way and will be further stimulated with the completion of the several great hydro-electric projects now going forward. Our labor supply is good and for the most part is native born, comparing favorably with the Anglo-Saxon stock of the Carolinas."

This trip is the result of the organized efforts of many interests throughout the state, having been conceived by the White River Chamber of Commerce. Starting on November 17 the exposition first visited Memphis, and then stopped at Muscle Shoals, Charlotte, Washington, Baltimore, Annapolis, New York, Niagara Falls, Cleveland, Indianapolis, and St. Louis. It is estimated that before the train again reaches Little Rock this week more than 50,000 persons will have seen the exhibits.

At each of the cities visited, elaborate programs were made for entertaining the visitors. At Washington the delegation was received by President Coolidge, who was presented with a "nilloak" smoking set made from Arkansas clay, while Mrs. Coolidge was given two vases of the same material. Baskets of apples, jugs of syrup and rice were also given the Chief Executive and his wife.

The three baggage cars, carrying the exhibits were furnished by the Missouri Pacific Railroad, of which Mr. L. W. Baldwin is president. The road has 2000 miles of track in Arkansas and has given full support to the movement. In the booths arranged along the sides of the cars were displayed products of the state's farms, factories, forests, mines, oil and gas fields. Lumber, bauxite from which aluminum is made, rice and a wide variety of farm products including fruits and vegetables, cotton, oil, clay products, minerals in number,—these formed a part of the exhibits. The products of many factories were shown, including glass, woodenware, furniture, building materials, etc. Stuffed animals native to the various sections of the state made a strong appeal to hunters.

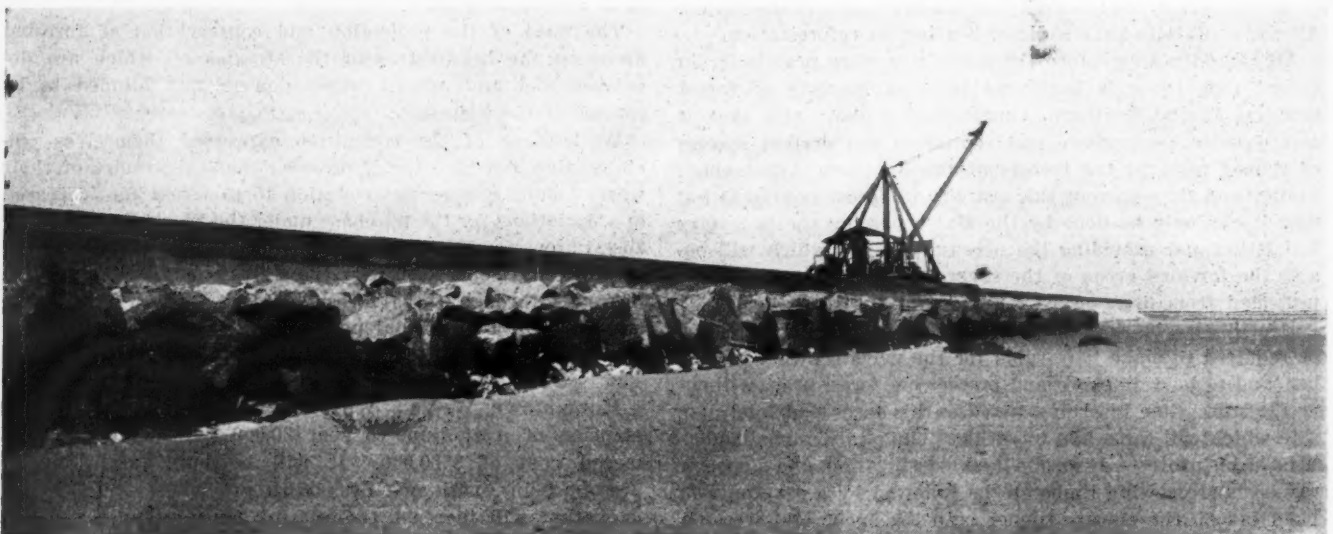
Among those making the tour were: John T. Stinson, director of Agricultural Development, Missouri Pacific Railroad; J. S. Utley, Attorney-General, and Charles H. Brough, former governor of Arkansas; Clay Henderson, chairman of the State Tax Commission; Edward Harper, chairman of the State Railway Commission, and Virgil C. Pettie president of the Arkansas Advancement Association. Wallace Jackson, secretary to Governor Thos. C. McRae represented the state executive on the trip.

Specifications for Kerosene.

Results of survey of the kerosenes marketed in the United States, conducted by the Department of the Interior, through the Bureau of Mines, indicate the need of further investigation as to long-time burning oil, states the Bureau. In this work it was able to obtain the cooperation of the Signal Section of the American Railway Association. A large number of samples of railroad oil were examined. It is hoped that the work will eventually result in the preparation of a more satisfactory specification for this product than now exists.

Completing Seawall Extension at Galveston, Tex.

Work is proceeding steadily upon the extension of the Galveston seawall, according to Major B. B. Browne, Corps of Engineers, and Acting District Engineer. On October 27 a new stretch of wall 2800 feet long was completed, and riprap protection at its connection to the south jetty is now being placed. This makes a total of 13,160 linear feet built from a connection with the old seawall to the south jetty. Preparations are now being made for the fill behind this wall and

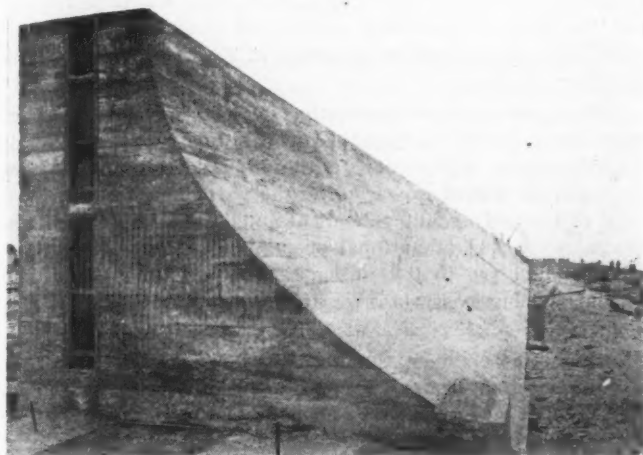


FRAME DERRICK PLACING RIPRAP PROTECTION ON GALVESTON SEAWALL.

the concrete roadway adjoining the wall, and it is expected that work will be started on this early in the new year.

The first piling for the extension was driven in May, following the allocation of \$670,000 by the War Department for maintaining the Galveston channel and for the seawall improvements.

A project begun in 1920 and completed last year called for an extension of 10,300 feet to the seawall constructed in



SECTION OF SEAWALL.

1904, funds for 3300 feet of which were supplied by the county of Galveston and appropriations by Congress providing for the other 7000 feet.

The wall proper is 16 feet wide at the bottom, and 5 feet wide on top and 13 feet high, with a vertical back and curved face, resting on a base 20 feet wide and 3 feet thick, both being constructed of concrete. The foundations consist of rows of four round piles, 30 feet long, every four linear feet, with a continuous row of sheet piling under the toe. The top of the wall is at elevation 17 feet above the mean Gulf level, and the bottom at 1 foot above mean Gulf level.

Says No Serious Calcium Arsenate Shortage.

Atlanta, Ga., November 23—[Special]—"We have been hearing about an alleged 'shortage' of calcium arsenate every year," said Ira Williams, Georgia State Entomologist, "and so far as I know it has never materialized enough to give us any very serious trouble.

"I have on my desk right now letters from a California company which will turn out 300 tons of raw white arsenic a month, a Montana company which will produce 100 tons of arsenic a month, a firm in California which will produce five tons of calcium arsenate a day, a firm in Germany offering to put 200 tons of calcium arsenate a month on the American market, and a firm in Australia which can put either raw arsenic or calcium arsenate on the market.

"There is a larger supply in view for the coming year than ever before. And with every prospect bright that the present bill before Congress repealing the 25 per cent duty on calcium arsenate will pass, I see no reason for farmers to be worried either about a short supply or high prices."

And as the opinion expressed by Mr. Williams is felt pretty generally by leaders throughout the state, there is little danger of the farmers being stampeded into loading up on high-priced arsenate.

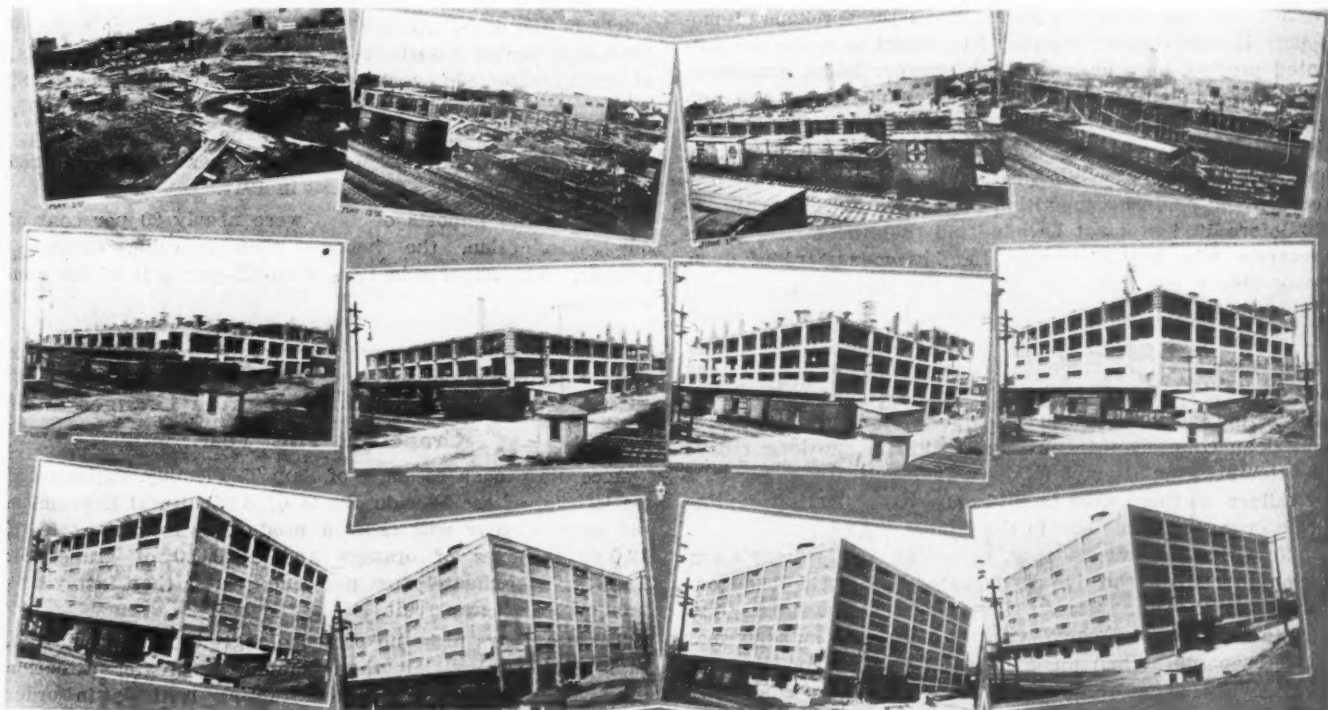
They will need calcium arsenate, more arsenate than ever before in fact, but they are going to take their time about buying it, and wait for reasonable prices.

\$300,000 Fireproof Warehouse for Knoxville.

Knoxville, Tenn., November 23—[Special]—One of the first fireproof warehouses in eastern Tennessee has recently been completed for the Knoxville Fireproof Storage Co. by V. L. Licholson, general contractor, of this city, at a cost of nearly \$300,000.

The building is six stories high and has a floor area of 135,000 square feet. It was built for general storage, and the top floor has 48 separate compartments for individual storage of household goods. The structure is of reinforced concrete, brick and hollow tile construction, with steel sash and doors, slab roof and equipped with a sprinkler system.

Moores & Dunford, of Chicago, Ill., are the architects.



A PROGRESS PICTURE—SHOWING VARIOUS STAGES OF CONSTRUCTION IN THE \$300,000 FIREPROOF STORAGE WAREHOUSE RECENTLY COMPLETED AT KNOXVILLE.

America Winning Supremacy in the Dye Industry.

America's supremacy over Germany in the dye industry of the world is a matter only of a few years, according to Professor J. H. James, head of the Department of Chemical Engineering, at Carnegie Institute of Technology, in Pittsburgh. "This probability," says Professor James, who has made a study of the dye industry, "is evidenced by the fact that the United States now produces about 93.5 per cent of the dyes actually consumed in this country. While it is still necessary for this country to import the other 6.5 per cent from Germany and Switzerland, and which percentage represent only the latest developments of dye manufacture in these two countries, it is clear that America's ability to shift for herself in the dye industry is an indication that, eventually, she will supply most of the dyes to the world."

In tracing the scientific development of the dye industry in this country, and the remarkable progress it has made since 1914 when the war shut off the supply coming from Germany, forcing America to shift for itself for its dyes, Professor James said: "Germany was the home of the dye industry and has done more scientific research along these lines than any other country on the face of the globe up to the time of the war."

"From 1870 to 1914, which is commonly referred to by students of industrial chemistry as the 'golden age of German dye stuff manufacture,' there took place the most wonderful development in chemical manufacture in the history of the world. It was during that period that the German government extended long-term credits to the firms interested in research work and development of this kind, and the manufacture of this product. And it was during that time that Germany made itself known everywhere as the leading dye country of the world."

"In a new country, like the United States, capital secured greater returns from mine, timber, railroad and steel development, and industrial leaders naturally did not become interested in an industry that required such an outlay for equipment and continued research such as the Germans were putting into their organic chemical manufacturing. In addition, our patent laws relative to foreigners are so framed that an American patent gives the foreigner a monopoly in this country whether he chooses to make the patented product here or not. With cheaper labor, consisting of an abundance of chemically trained men from the universities and technical schools of Germany, conditions were really more favorable there for this kind of manufacturing than in this country, while furthermore, our patent laws protected them against competition in this market."

"Before 1914, it must be admitted that the textile manufacturers who are, of course, the big consumers of dyes, never threw any influence to aid the American chemical manufacturers in their various efforts, legislative and otherwise, that were made to develop an American color industry. As a straight business proposition they figured they could always secure their dyes cheaper from Germany, where this industry was first developed; and the history of American color manufacture up to 1914 is one long record of attempt after attempt followed in practically every case by failure, as there were in 1914 only seven small struggling firms engaged in this line in the United States."

"Now that the war is over, reflecting on Germany's ambition to control the dye business of the world leads one to suspect that the German Government had a sinister motive in gaining supremacy. Control of the dye industry may have been more than an economic measure; for, theoretically, every chemical plant manufacturing dyes is a potential plant for the manufacture of munitions, since it happens that the apparatus and skilled men used in the first stages

of much of the color manufacture can be turned over, in a short time, to the manufacture of high explosives."

"Soon after the war broke out, with the English blockade in force, the need for dyes became so great that something here was necessary. Chemists became interested in the work, and the manufacture of American dyes was started on a larger scale than had ever been possible before."

"Of course, it was poor stuff that was produced at the beginning. That was expected. Colors faded and ran, and textile manufacturers were up in arms. That was expected too, but the progress has been steady and consistent, and gradually America is taking its place in the world as a manufacturer of dyes."

"Since 1918, various legislative devices kept out the German dyes until the passage of the tariff bill last year, which ensures a stability to the industry for some years to come. It would appear to be the part of wisdom, since a well developed organic chemical industry is absolutely essential as a part of national preparedness, that the government should see to it that we have at all times all of the encouragement possible given to these firms engaged in this line."

"Furthermore, since the biggest users of colors are the textile manufacturers, it would seem that these men should, long ago, have engaged in the manufacture of colors themselves, thereby getting them at cost."

"The Pittsburgh district has shown us a similar situation relative to soda ash manufacture. This chemical is essential in glass manufacture. One large plate glass firm many years ago erected its own soda ash plant in Ohio, and in another line of glass manufacture a group of glass men organized a soda ash company which provides all the soda needed by each glass concern holding stock in the alkali company. It is hard to see why the powerful textile group should not have done the same thing in connection with dye manufacture. If they had done this, say back in 1900, there would have been no dye famine in 1914."

Quoting from a recent report of the United States Tariff Commission, Professor James recited figures showing increases in dye production in this country in the last nine years, and corresponding decreases in the average sales prices of the dyes. According to this report, there were, in 1914, only seven American firms that manufactured a total of 6,619,729 pounds, valued at \$2,470,096. The sales of 87 American firms manufacturing dyes in 1922 totalled 69,107,105 pounds, valued at \$41,463,790. The average sale price of domestic dyes for 1922 was 60 cents per pound compared with 83 cents in 1921 and \$1.26 in 1917.

In 1914, the imports of dyes were nearly 90 per cent of our consumption, the imports then totalling 45,950,785 pounds. The imports in 1922 were 6.5 per cent of our consumption.

Estimate 20,000,000 Boxes Florida Oranges and Grapefruit This Year.

According to an estimate of Sam T. Fleming, agricultural statistician of the Florida Bureau of Agricultural Economics, the current year will show a production for the state of 12,000,000 boxes of oranges and 8,000,000 of grapefruit. This is approximately ten per cent greater than last year's production of grapefruit.

There appears to be no present danger of over-production, says Mr. Fleming, but there should be greater attention directed toward cooperative marketing methods in order that the fruit may be distributed to the best advantage in the markets of the North and West.

Federal Intermediate Credit Bank.

WITH AN EXPLANATION OF HOUSE BILL NO. 76.

By W. W. SANDERS, Chief Clerk of the Markets and Warehouse Department of Texas.

The Federal Agricultural Credits Act of 1923, approved March 4, 1923, was one of the constructive laws forced through Congress by the farm block. This is an illustration of the fact that farmers and their representatives may accomplish big things by organized effort, but can not do so otherwise.

What are the outstanding features of this law? They are:

1. The Federal Farm Loan Board is given power to grant charters for twelve institutions to be known and styled "Federal Intermediate Credit Banks." Such institutions are to be established in the same cities as the twelve Federal Land Banks and in connection with said banks. These Intermediate Credit Banks will be under the general supervision of the Federal Farm Loan Board who will fix and enforce all restrictions, limitations, and conditions that are deemed safe and wise in the operation of these banks.

The Federal Treasury is to subscribe to the capital stock of each Intermediate Credit Bank \$5,000,000. The Intermediate Credits Bank at Houston is already organized and is doing business.

2. These Intermediate Credit Banks are authorized to advance money to certain local institutions, such as National banks, State banks, trust companies, agricultural credit corporations, incorporated live stock loan companies, co-operative pooling banks, co-operative credit or marketing associations of agricultural producers, organized under the laws of any state, etc., for the purpose of aiding agriculture or stock raising.

The money advanced to these local financing institutions must be loaned under the following conditions and limitations:

(a) To persons engaged in producing or producing and marketing staple agricultural products.

(b) To persons growing, raising, fattening and preparing for the markets or marketing live stock.

(c) The loan to producers of staple farm products must be secured by warehouse receipts or shipping documents; and loans upon live stock must be secured by mortgages on the cattle or by shipping documents.

(d) Not more than 75 per cent of value of securities can be loaned thereon at one time.

(e) The rate of interest must not exceed one and one-half per cent above the rate paid to the intermediate Credit Bank, which at the present time will not exceed 7 per cent to the producer of cattle or farm products.

(f) Loans may be made for six months with the privileges of renewing at end of that time, and such loans may be renewed and extend from time to time for a period of three years.

State Laws.

In order to aid producers to get the full benefit of the above outlined Federal Act, the Markets and Warehouse Department of the State prepared and presented to the Legislature, H. B. No. 76, and the Federal Farm Land Bank of Houston prepared and presented House Bills Nos. 183 and 184. These all became laws and are effective as of August 14. A great deal of publicity has been given to H. B. Nos. 183 and 184, but very little has been said about H. B. No. 76; I shall therefore explain H. B. No. 76. It provides:

"Any association of persons, which may include corporations duly chartered, state banks and trust companies, and co-operative associations composed of persons engaged in producing, or producing and marketing staple agricultural products, or live stock, or both, may organize pools for the purpose of borrowing and lending money on agricultural products and live stock, or both for agricultural purposes, or for the raising, breeding, fattening or marketing of live stock.

"Any number of persons, not less than three, may incorporate for the purpose of growing, storing, preparing for the

market, and marketing agricultural products, or for the purpose of growing, raising, fattening for the market, and marketing live stock, or for both such purposes, and may use any of such live stock or farm products, or both, as security in financing such enterprise and shall have all the privileges of a pooling organization in borrowing money to promote the business of such corporation."

It will be observed that under the above section there may be a number of different organizations any one of which would be authorized to borrow money from the Federal Intermediate Credits Bank and furnish such funds to bona fide producers of agricultural products or of live stock or both. I shall therefore outline some of the organizations that may take advantage of this act as it reasonably appears to me.

1. All or any number of the banks of a county, or city, or designated territory, may subscribe to the capital stock of a pooling institution and form a corporation, or association, and could borrow money from the Intermediate Credit Bank. This would be very inexpensive to the pooling banks, as this new department of the work would require but very little additional help—one additional man with a stenographer would be able to do all the additional work for a county or city with no more than six to eight banks.

2. Any single bank, either Federal or State Bank, may borrow this money from the Intermediate Credits Bank on the same security as is furnished by the pooling banks. In either case the bank is required, in addition to other securities furnished the Federal Bank, to endorse all its securities, or to endorse for the full amount of funds borrowed.

3. Any permanent warehouse corporation incorporated under the permanent Warehouse Law of the State may, under its present authority, carry on the business of financing the producer. And may borrow from the Intermediate Credit Bank and reloan to its customers. It may use the negotiable warehouse receipt issued by the corporation to put up as collateral to the Intermediate Credits Bank.

4. A Public Licensed and Bonded Warehouse, whether incorporated or not, may organize and furnish this money to the farmers and stock men.

5. Any number of persons, not less than three, may form a financing corporation, for the purpose of financing the producers of staple agricultural products or live stock or both. Under this heading we mention the following purposes for which a corporation may lend these funds:

(a) Growing staple agricultural products.

(b) Storing staple agricultural products.

(c) Preparing for the market staple agricultural products.

(d) Marketing staple agricultural products.

(e) Growing and raising live stock for the market.

(f) Fattening live stock for the market.

(g) Marketing live stock.

(h) Storing and marketing agricultural products.

(i) Storing, preparing for the market and marketing agricultural products.

(j) Growing, storing, preparing for the market and marketing staple agricultural products.

(k) Growing, raising, fattening for the market and marketing live stock.

It will be observed also that both growing, raising, etc., of live stock and the growing, warehousing and marketing of agricultural products may be combined in one organization; hence, a man who needs funds on the farm to aid in producing staple agricultural products and also to aid in growing,

feeding or marketing live stock may borrow for the combined purpose.

The above plan of incorporating for a double purpose should be of special interest to those men who want to make farming and cattle raising a business. Three or more men who have land adjoining or in the same section of the country suitable for agricultural and live stock purposes, could easily pool their lands and other property and put it under business management and enter into the business of producing for the profit that may come from the sale of these farm, ranch and orchard products. This should be of special interest to owners of undeveloped tracts of land, suitable for more than one purpose.

The Bonded Warehouse.

The laws touching farm credits, both Federal and State, however, recognize the imperative need of proper warehousing, and of the negotiable warehouse receipt. Hence, if the bankers and farmers of any community contemplate taking advantage of these laws, they should set to work at once, to get access to a warehouse in which to store the product against which the receipt is issued and upon which the money is loaned. The pooling organization may own its own warehouse, or it may lease warehousing space for its customers, or it may simply loan on warehouse receipts issued by any licensed and bonded warehouse under the supervision of the State Law, or of the State and Federal laws.

Organizations under this Act may act as agents for all its borrowers in the sale of commodities upon which loans have been made, and where the loaning organizations own or operate the warehouse, it may make the usual and customary charges for storing, handling, sampling cotton or other commodities.

Provisions are also made for demanding margins under certain conditions, and for bonding the institutions, and for insurance of all property upon which loans are made. All organizations under this Act are required to obtain a license from the State Market and Warehouse Department, and must make quarterly reports to this Department.

Rapid Growth of Georgia Creameries and Cheese Factories.

Atlanta, Ga., November 22—[Special]—Three years ago the report of the State College of Agriculture shows, there were only three creameries operating in the entire state of Georgia. There are now sixteen. In 1920, the total value of the butter produced in Georgia's three creameries was only \$10,000. This year butter produced in the state creameries will exceed \$700,000 in value.

Equally remarkable is the report of cheese production in the state.

There are now seven factories in operation, with two new ones to begin production at an early date, where in 1920 there were none at all. The factories now in operation are producing 250,000 pounds of cheese a year.

What is more, Georgia cheese is proving to be of the highest quality. It is in strong demand all over the country and often sells at a premium over cheese from Wisconsin and New York.

The rapid rise of the butter and cheese industry in Georgia is largely due to the untiring efforts of the State College of Agriculture, which has kept specialists at work for years and has undertaken the supervision of all creameries and cheese factories in the state.

It is estimated that in the past three years a new industry has been developed which is already bringing in more than \$1,000,000 annually to the state, and which has limitless possibilities for expansion.

Business Men Actively Organized for Development of Eastern North Carolina.

Eastern Carolina Chamber of Commerce.

Kinston, N. C., November 23.

Editor Manufacturers Record:

Eastern North Carolina business men took the lead in sectional development nearly two years ago, when plans were begun for organizing a big sectional organization to aid in developing the wonderful natural resources of this section. The completed organization chose the name of the Eastern Carolina Chamber of Commerce and includes 46 counties in the eastern part of the state.

Definite work was begun April 10, 1922, when the present secretary-manager became the active executive of the organization. Dr. C. J. Ellen, of Greenville, a prominent professional man of eastern Carolina served as the first president. A vigorous campaign for finances and also a campaign to acquaint the people of eastern Carolina with the plans were immediately launched, with good results.

The first and most needed thing as the directors saw it at that time was to get a real program of diversified farming put into effect in the agricultural section of North Carolina. To this end the work has been directed for the most part for the past eighteen months and the results have been gratifying. The business men have come to see the necessity of their having a part in mobilizing sentiment favorable to this program.

The guns of the organization have been directed at the boll weevil and the slogan of the Eastern Chamber, agriculturally speaking, is "Make cotton the surplus money crop and produce all necessities for the home on the farm."

As a direct result of the campaign hundreds of pure bred hogs have been sold to the farmers of this section; more than a score of cars of dairy cows have been shipped in; at least half a dozen large incubators have been installed and are now turning out chicks by the thousands every three weeks in the year; banks have joined in a movement to organize \$1000 poultry clubs to stimulate growing more and better poultry; poultry associations have been organized for the furtherance of this industry; creameries are being established, as well as many other industries of more or less importance along these same general lines.

Together with other agencies the organization is making a very urgent appeal to the railroads to put on homeseekers rates into eastern Carolina. It is believed that this will be a great help toward inducing people to come and look over the advantages offered by this section.

The Eastern Carolina Chamber of Commerce is trying to do what its name implies; to carry on a real development campaign, touching every phase of community activities. The future is bright, as the business men are learning to appreciate what they have to offer.

The present officers are: Geo. C. Royall, manufacturer and merchant, Goldsboro, President; H. H. Taylor, President The National Bank, Kinston, 1st Vice-Pres.; Dr. John D. Biggs, President North Carolina Bankers Association, Williamston, 2nd Vice-Pres.; P. L. Clodfelter, Cashier Farmers Bank, Greenville, 3rd Vice-Pres.; L. J. Mewborne, President Farmers & Merchants Bank, Kinston, Treasurer. Executive Committee: Geo. C. Royall, Chairman; H. H. Taylor, Kinston; G. A. Barfoot, Wilson; W. H. Austin, Smithfield; C. L. Blount, Snow Hill. These are all business men of large affairs who have won the confidence of the people of their respective communities, and they are giving their time unselfishly for the development of Eastern North Carolina.

N. G. BARTLETT, Secretary-Manager.

\$3,000,000 STRUCTURE TO REPLACE BURNED ARLINGTON HOTEL AT HOT SPRINGS, ARK.

SKETCH OF \$3,000,000 HOTEL UNDER CONSTRUCTION.

Hot Springs, Ark., November 23—[Special]—Three shifts working day and night are rushing construction here on the New Arlington Hotel, which when completed and furnished will represent an investment of upwards of \$3,000,000. Ault & Burden, of Little Rock, have the general contract, and Mann & Stern, of that city, are the architects. The building is to be completed by December 15, 1924.

The new structure is located on Central Avenue and Fountain Street, directly across from the old hotel, and is so situated that the building faces directly down the avenue. Two wings on the avenue and street will be seven stories high, and these join a center section 10 stories high, the body of the building being 11 stories.

The structure will be tapestry faced, almost white brick, with trimmings of white stone and stucco. The main cornice of the 11-story portion will have a wide frieze the height of the upper story. Roofs, where visible, will be of red Spanish tile. Porch floors and roofs will be of quarry tile.

In the basement will be space for a number of shops, and the remainder devoted to hotel utilities such as laundry, waiters' dining room, etc. In the first story will be the main rotunda extending through the second floor; on the first floor also will be a stair case hall, writing and reception rooms, main cafe, private dining rooms, kitchens, store and refrigeration rooms, etc. The second, third and fourth stories of the rear wing are made into two stories. In the lower will be a large convention hall, and above will be a bath hall, a special feature of the design. The fifth story of the rear wing opens directly upon North Mountain, which will be landscaped. Every room in the building will have a mountain view.

The building will be served with four passenger elevators, provided with micro levelling apparatus. There will also

be a service elevator, baggage lift, and an elevator connecting with the machinery room, store room, kitchen and convention hall.

In the building will be 501 guest rooms, one half of them with tubs, and all have toilet rooms. Fifty of the bath rooms will have hot water from the Government Springs. Eighteen of the principal suites will have private parlors. The basement and dining rooms will have a forced system of ventilation.

The site of the old building has been leased and will be made into a floral park. Connecting with one wing of the hotel will be a garage with accommodations for several hundred machines.

Cotton Exports from the United Kingdom.

Manchester, England, November 13—[Special]—The total of manufactured articles shipped from the United Kingdom during October was £53,881,525, of which cotton yarns and manufactures represented £15,960,721, compared with £48,937,040 and £14,552,489, respectively, for the previous month.

To the end of October this year the total exports of manufactured articles were £482,649,355, and the total of cotton yarns and manufactures £148,870,259, against £472,524,499 and £155,573,409 in the corresponding period of last year.

For the month of October this year cotton piece goods exports totalled £12,380,581, the square yardage being 371,289,700, and the comparative figures for September £11,395,491 and 344,318,800 square yards. During the period January to October, 1922, the shipments were 3,421,932,700 square yards valued at £117,854,188 and for the corresponding portion of this year 3,468,506,300 square yards and £116,452,627. The following places have increased their takings during this

time, and the figures represent in square yards the amount of the increase:

Bombay 91,704,000, United States of America 64,532,000, Argentine Republic 29,129,000, British West Africa 19,213,000, Straits Settlements and Federated Malay States 18,215,000, Venezuela 15,283,000, Madras 15,100,000, Chile 14,736,000, Cuba 14,573,000, Colombia 13,619,000, Canada 11,295,000, Ceylon 10,303,000. In the following cases the countries have taken smaller quantities: Germany 80,537,000, China (including Hong Kong) 78,652,000, Switzerland 65,770,000, Australia 42,840,000, France 21,491,000, Belgium 20,660,000, Netherlands 14,134,000, Siam 8,601,000, Morocco 8,359,000, Burmah 6,546,000, British South Africa 5,834,000, Japan 5,345,000.

Yarn exports in October 1923 absorbed £2,073,292, the weight being 14,733,500 pounds compared with £1,764,295 and 11,987,180 pounds in September. For the ten months ended October this year the total weight sent abroad was 119,263,500 pounds, of a value of £17,336,501, against 174,395,600 pounds and £22,791,503 last year. The cases of increased takings are, in pounds:

Bulgaria 2,984,000, Roumania 1,457,000, France 926,000, Argentine Republic 664,000, United States of America 505,000, Sweden 397,000; whereas the following recorded decreases: Netherlands 26,526,000, Bombay 12,136,000, Germany 7,790,000, China (including Hong Kong) 5,617,000, Bengal, Assam, Bihar and Orissa 2,491,000, Switzerland 1,778,000, Madras 1,348,000, Belgium 907,000, Burmah 729,000, Dutch East Indies 615,000, Straits Settlements and Federated Malay States 506,000, Denmark 475,000.

CONTRACT LET FOR \$3,000,000 PLANT AT BALTIMORE.

Work to Start Soon on Buildings for Standard Sanitary Manufacturing Co.—Proposed Unit at Louisville, Ky., to Cost \$1,500,000.

With the award of construction contracts, announcement of which has just been made, work will be under way in the near future upon the \$3,000,000 plant at Baltimore for the Standard Sanitary Manufacturing Company, of Pittsburgh, Pa.

According to H. M. Reed, assistant general manager of factories, contracts have been let to date and engineers selected as follows: S. Diescher & Sons, Pittsburgh, engineers; The Fort Pitt Bridge Co., Pittsburgh, will furnish the steel; B. A. Greah Construction Co., Pittsburgh, will place the concrete foundations and erect the concrete warehouse.

The warehouse will be a concrete and steel building, about 170 by 350 feet. As soon as foundations are completed for the main factory buildings and the steel arrives, work will be pushed. Construction of the necessary sidings to facilitate handling materials is now under way on the 48-acre tract acquired early in the spring from the Canton Company in the Baltimore industrial district. Only a part of the tract will be occupied by buildings planned initially; other groups will be erected as needed with the possibility of the total investment reaching \$10,000,000 or more. The product is cast-iron enamelled ware.

The payroll of the company will be among the largest in the city, since approximately 2000 persons will be employed at the start and erection of the other units would bring the number up to 6000. More than 10,000,000 feet of lumber will be required annually for crating purposes alone, and 6000 car loads of freight will be handled.

In the opinion of Baltimore real estate operators, construction of the plant in the Canton section foreshadows an extensive housing development. That section has enjoyed unusual growth of recent years due to the almost continuous

industrial expansion under way there, and the announcement of contracts let for the plant of the Pittsburgh company is likely greatly to stimulate house building, with a view to having in readiness for occupancy upon completion of the plant many residences near to the huge factory.

Capitalized at \$30,000,000 the Standard Sanitary Manufacturing Co. are said to be the largest manufacturers of bathtubs and plumbing fixtures in the world. In addition to erecting the plant at Baltimore the company has plans under consideration for building a unit, estimated to involve the expenditure of possibly \$1,500,000 at Louisville, Ky. On this Mr. Reed writes:

"Relative to our proposed brass building in Louisville, Ky., at present we do not have any plans of the building, nor have we let contracts. We expect to look around considerably before detailing this building, and it will be some time before we have any information that will be useful.

"At this writing I believe that Joseph & Joseph of Louisville, Ky., will be the architects, but that is as far as we have progressed."

The plant at Louisville will manufacture brass plumbing fixtures, and the building will be of brick, concrete and steel construction. In addition to the proposed unit a three-story office building and recreation hall capable of seating 2000 people is planned.

Raising Cotton Despite the Boll Weevil.

Carroll County Trade Board

Carrollton, Ga., November 19.

Editor Manufacturers Record:

I noticed an article in your issue of November 1 about Mr. A. Mour, a farmer near Quitman, Ga., as to how he combatted the boll weevil with chickens.

When I read this article I was inspired to write you the experience of some of our farmers in Carroll county. No doubt you have heard that this county made almost a normal crop. Carroll county will raise this year between 20,000 and 25,000 bales. How have they made this amount? It was done by high fertilizing, rapid cultivation and by using calcium arsenate.

Here is what one man accomplished on 21-2 acres of average land following the above plan. He used 1900 pounds of fertilizer, eight tons of compost and seventy-five pounds of poison. He has ginned two bales and has 1250 pounds of seed cotton yet to gin. After paying all expenses he will have a profit of over \$400.

What this man has done, others can do.

J. D. Powell is the man who made this remarkable production. He says that the secret of combating the boll weevil is in small acreage, well fertilized, and cultivated often.

The farmers are diversifying. They are making more cotton on less acreage than ever before and raising all the food crops necessary to carry on up-to-date farming.

Carroll county is not depending on cotton altogether for a living. Last year we imported about 200,000 baby chicks. We are recognized as the banner county of the state in the chicken industry, and this year we are exporting chickens. With two 20,000 capacity incubators Carroll county will be able to supply local needs and export a great number.

A poultry show will be put on by the Poultry Association of the county December 11-14 to create a still greater interest in the chicken business.

Cooperation is the secret of success in this county. We can attribute our success to this and we expect to make next year a success in the same manner.

E. E. TWIGGS, Secretary.

Contract Let for St. Louis Apartment Building.

St. Louis, Mo.—Dougherty-Sheehan Real Estate Co., of this city, have been awarded the the contract for erection of a fireproof store and apartment building, 57 by 136 feet, for the Crest Investment Co., after plans by Walter F. Sheehan, architect. A vacuum steam heating plant, electric refrigerators and incinerators will be features of construction.

\$1,000,000 Campaign for College Improvements.

Macon, Ga.—Wesleyan College is to launch a movement for raising \$1,000,000 for new buildings and equipment, according to an announcement by Dr. Wm. F. Quillian, president. A new site has been purchased in the Rivoli section of Macon.

The executive committee of the campaign includes Bishop W. N. Ainsworth, Rev. W. F. Smith, O. A. Park, Rev. O. F. Cook, C. B. Lewis, Former Governor N. E. Harris, President W. F. Quillian, George B. Jewett, W. R. Rogers, Jr., and W. D. Anderson.

\$1,300,000 Cisco Dam Now Complete.

The Cisco dam on Sandy Creek, four miles from the city of Cisco, Tex., has been completed and all timber and debris is now being removed so that water may be impounded for municipal and irrigation purposes. The dam is of the reinforced concrete type, and 1140 feet long, including end walls, with a height of 100 feet from foundation to crest of spillway. The deck slab is supported by 60 buttresses spaced 18 feet, center to center. The spillway is 270 feet long with a maximum depth of flow at 10 feet. With two 8 by 8-foot electrically operated sluice gates the total discharge will be 36,000 second feet.

The capacity of the basin at spillway level is 8,000,000,000 gallons, and the surface area 1000 acres. The maximum depth of water is 80 feet. On top of the dam an 18-foot roadway is now being constructed to be known as the Cisco-Breckenridge Highway. It will be brick paved, with sidewalks each about 6 feet wide.

The total cost of the project exclusive of special road work will be approximately \$1,300,000. More than 250 men have been engaged for two years.

The Elrod Engineering Co., of Dallas, is the consulting engineer, and the project was designed by Frank W. Chappell, of that company. The general contractor is the H. F. Friestedt Co., of Chicago.

A New Yorker's View of Short Cotton Crops.

H. L. Stevens & Company
522 Fifth Avenue

New York, November 20.

Editor Manufacturers Record:

I am much interested by the opening editorial on the cotton famine in your issue of November 15. It seems to me, however, that the publication of such facts would naturally lead the cotton raisers of the South to further restrict production next season. If so, or if the boll weevil and other causes should cut down next year's production to say two million bales below this year's, is it your opinion that shorter crop will have an actual value of a billion or so beyond this year's crop?

If so, mixed farming for the South will prove a greater boon than anyone ever dreamed, since, if the owners of cotton land can be induced to reduce the cotton production slightly each year, and thus run the price up to "very much higher than present figures," which you say the world will pay, he will get more and more each year for his cotton, and what he raises on the remainder of his land will be "velvet," as he can thus also provide most of his own food, and is not compelled, by virtue of his climate, to provide himself with very much in the way of clothes, it looks as if he will shortly be able to join heartily in with you in "the laugh" on the Lancashire spinner cringing under just retribution for the sins of his fathers. That is, unless the spinners are able to find a measure of relief in inducing the benighted Hindoos and Egyptians to produce enough more to break the charm, or some of the cotton raisers fail to recognize the cumulative force, and start in to try to raise a whale of a crop while the price is good. And then there is our friend, the boll weevil, to save them at least partially from the result of this folly, even if they attempt it.

Would that in all sections the farmer had such a glorious silver lining to his clouds! For instance, cannot some one evolve or discover some method of showing the one-crop tobacco farmer that exactly the same thing applies to him, only more so, as the world at present will certainly continue to buy cigarettes even after the price of cotton has gone so high that we will know our suits are all wool without bothering to look?

ROBERT L. ACKER.



THE NEW DAM AT CISCO, TEXAS. SPILLWAY AT EXTREME RIGHT.

THREATENED COAL STRIKE TO BULLDOZE NON-UNION MINERS.

The Safety of the Country Lies in Non-Union Coal Mining.

Charleston, W. Va., November 23—[Special]—Belief heretofore prevailing among coal operators of West Virginia that the coming of next April would see a nation-wide strike of bituminous coal miners in the organized fields has been confirmed by the announcement from the headquarters of District 17, United Mine Workers, in this city, made by C. F. Keeney, president of the district, that a campaign would be launched to organize all the non-union fields in West Virginia with a view to bringing all of the 125,000 miners in the State within the union fold. That announcement is regarded, particularly among the non-union operators, as a certain forerunner of a strike, it being the obvious purpose of course on the part of the miners' union to force a suspension of operations at all bituminous mines, for with any considerable number of mines in operation it would be possible to keep the nation supplied with fuel and hence the union would not be in a position to dictate terms, as it hopes to be able to do, according to many operators.

Giving expression to a determination on the part of the union to extend the union into the non-union fields of West Virginia, President Keeney at the same time extended a general invitation to the unorganized coal miners of West Virginia to become members of the union and pledged "all lawful assistance and moral support" from District 17 to those who might desire to join the union.

It is declared by Keeney that the entire staff and all the financial resources of the international union will support him in his campaign to extend the organization into non-union fields, and the statement issued by Keeney strongly intimates that the launching of the drive to unionize open shop mines is an outcome of a recent meeting of the policy committee of the international organization at Indianapolis. If such is the case, it is believed in coal circles that the question of calling a strike was also probably discussed. A recent statement of the finances of the international union showed that the resources of the United Mine Workers were such that it is in a position to finance a strike for a time at least.

The head of the miners' union in District 17 ascribes delay in proceeding with the organization of non-union fields as due to the armed march trials growing out of previous efforts to impose the union on miners in non-union or open shop territory. Such armed march trials are still in progress, with William Blizard, president of Sub-district 2 of District 17, United Mine Workers, now being tried for the second time on the charge of being an accessory to murder in connection with the march of union miners to the Logan County border. Operators are inclined to question the use of the phrase "lawful assistance" in view of the unlawful methods resorted to in the past, as proved by numerous convictions of those participating in previous organization attempts.

As to whether the miners' union may be more successful in the future than in the past, the belief prevails among many operators that the union can hardly hope to succeed and that on the contrary it may lose ground just as it did following the armed march in 1921 and the long strike of 1922. As a result of the convictions following the armed march, the union will be without the support of public sentiment and in the next place will face the united opposition of the operators in open shop territory who are apparently determined under no circumstances to give ground, and the opposition of most of the miners in open shop territory who in addition to a preference for the open shop conditions are

working under non-union contracts, which the Supreme Court of the United States in the Hickman case has held are just as valid as any other kind of contracts. There are still in effect furthermore federal injunctions which prohibit the United Mine Workers from attempting to induce miners to become identified with the union.

Southern States Reclamation Association Formed— Emphasis on Constructive Policies—Immigration and Forestry Discussed.

Organization of the Southern States Reclamation Association was authorized last week at New Orleans, La., through unanimous vote of the delegates attending the forestry, reclamation and homemaking conference there. Clement S. Ucker, of Savannah, Ga., was named chairman of the committee on permanent organization, with Dr. F. H. Newell, consulting engineer of the reclamation service, A. G. T. Moore, of the Southern Pine Association, Walter Parker, of the New Orleans Association of Commerce, and Congressman W. B. Bankhead as the other members. The association will be incorporated and establish relations with the Western States Reclamation Association, with the possibility of a joint session next year.

The 300 delegates to the conference, which was held on November 19, 20, 21 and 22, were urged to advocate reclamation in their respective states and if possible to organize state conventions in advance of the next meeting of the Southern reclamation interests.

In a series of fourteen resolutions adopted at the final session, policies that should be pursued by national and state governments with regard to reclamation were set forth. The convention particularly concerned itself with questions of immigration, forestry and reclamation.

Regarding immigrants the convention urged that they be selected in the country of their origin, that aliens be registered upon their arrival in this country and that steps be taken to insure their distribution to various sections of the country. It was suggested that only those immigrants disposed to work in agriculture or industry be admitted.

A recasting of the entire reclamation law making it applicable to all parts of the United States and eliminating conditions which make speculative tenantry and soil deterioration possible was suggested in another resolution. A national reclamation service on a permanent basis was also advocated, to be supported by Federal and state funds and co-operation arranged with reclamation and settlement districts organized under state laws.

Forestry resolutions were passed advocating extension of Federal and state owned forests, just and practicable taxation of forest property, prevention and suppression of forest fires through Federal and state assistance, and a systematic study of all timbered, cut-over and now waste lands with a view to determining the best possible uses of these lands for timber growing, grazing or agriculture.

The conference also endorsed the campaign against the cotton boll weevil; it proposed state laws for compiling statistics by counties and districts on the annual production in quantity and value of agriculture, live stock, forest and mineral products, and for giving this information to the general public; it emphasized the necessity of proper state and local financing of new settlers; and recommended an extension of publicity campaigns by state agencies in co-operation with reputable local institutions to make known the agricultural opportunities of the South.

Biloxi, Harrison County, Miss., Jno. J. Kennedy, Mayor, at a recent election voted \$210,000 bonds for school and road construction.

A Policy for Home Development Which Would Enrich the South if Universally Followed.

Atlanta, Ga., November 17—[Special]—This is the story of a grocery store which, by helping others, succeeded in helping itself. The store is Kamper's Grocery. The city is Atlanta, Georgia. And the people it helped—and is still helping, as a matter of fact—were the farmers in Fulton county and the neighboring counties around Atlanta.

Quite a number of years ago Francis Kamper, who is president of the Kamper Grocery Company, decided that what the farmers of the section needed more than anything else was a number of cash crops. Vegetables, poultry and eggs would supply the cash. His store needed vegetables, poultry and eggs—not to mention high-grade milk and good creamery butter.

At that time the store was compelled to send to the North and East for everything, not only its butter and eggs, but even for its potatoes, lettuce and celery. The farmers of the section didn't know how to raise truck crops, and they were afraid to tackle something they didn't know very much about. As a result, Kamper's was paying standard prices, plus the freight, on products that could and should have been raised within a few miles of Atlanta.

Not only did the store pay more for the products than it should have paid, but the products themselves were not in nearly as good condition as they would have been had they been grown near Atlanta and shipped in on the early morning express trains. It was a problem any way you looked at it.

So Mr. Kamper got out the store lead-pencil and began to figure.

He figured, first it didn't matter who got the extra money he was paying for his produce—that is, as far as he was concerned. But it would be a whole lot better all around if the farmers of the community got it.

Therefore he decided to offer the neighboring farmers the same price he was paying, plus the freight, for their produce. But he made this stipulation. He wasn't going to pay a premium on run-of-the-garden stuff. It would have to be high-grade produce, the best that could be grown. And it would have to be properly graded and packed before he would accept it.

Any farmer who was willing to grow truck and ship him the cream of the crop, properly handled, stored, graded and shipped might reap the cream of the market prices.

The next thing Mr. Kamper figured on was getting a start on this new proposition. He went to a few of his farmer friends and told them what he was going to do. And a number of them co-operated with him.

Mr. Kamper began to study agriculture, packing, and marketing. If a farmer didn't know how to plant a crop, Kamper would tell him. If he didn't know how to grade it or pack it, he would tell him that, as well. He became for the time being a mine of agricultural information.

But Francis Kamper is like that—he is always studying, reading, finding new things to apply to his business, trying out new theories and new ideas. He is one of those men whose minds seem never to be idle for a moment.

Mr. Kamper got busy and furnished any and all information the farmer might want to know about grading and shipping. Then he kept a weather eye open for good producers. If a man sent in a particularly fine lot of country eggs, Kamper went out and nailed him down at once to furnish eggs for his store. If somebody in South Georgia shipped him an especially fine crate of cantaloupes, he forthwith became official cantalouper, or whatever you call it, for Kamper's.

In this way he was able to build up a splendid supply clientele for his store.

I was in his store the other day, and he was offering some of the best eggs I had ever seen—for 55 cents a dozen. He pointed them out to me with pardonable pride.

"See those eggs?" he inquired. "Look like they came from Chicago, don't they?"

"But they didn't. They came from a one-horse Southern farm, a farm only a few hours from here.

"The average farmer around that neck of the woods is getting 25 cents a dozen for his eggs. Why? Because he goes out about once a week, whenever he happens to feel like it, gathers in what eggs he can find, and brings them in to his village store.

"If he happens to find a setting hen, he calmly appropriates her eggs and sends them in with the rest of the bunch.

"The result is that after that batch has been candled a few times, not more than half of them are left. Careless gathering and careless handling has cost him ten or fifteen cents a dozen for his eggs.

"This farmer of mine, however, has got sense. He gathers his eggs every day. He marks them and grades them. They are uniform in age, size, shape and color. He brings them in to me in his car, and I give him 40 cents a dozen for them.

"They're worth that to me. And the same principle holds good with all cash and truck crops—I can afford to pay a neat premium on all produce that is of high quality and properly graded and packed. I can not only afford to pay a premium, but I am tickled to death to pay a premium for it.

"It helps the farmers of the community. It helps my customers. And, incidentally, it helps me and my business."

Did this policy of the Kamper Grocery company build up its trade?

Well—at the present time it is the largest single grocery store in the city, if that means anything. People go there because they know whatever they buy will be fresh and of the highest quality. They telephone their orders there from every section of the city. The store doesn't serve any one section, it serves an entire city, you might say.

And you can judge from the fact that it has now grown to a two-story building covering half a city block, with its own bakery, blending and packing department, and a force of employees numbering nearly one hundred that the policy hasn't exactly resulted in failure for the concern.

Not every groceryman will have to start at the beginning, as Kamper's did, inducing farmers of the section to grow truck. But every grocery store can insist on taking only high-grade produce and building a clientele to buy from as well as to sell to.

Hydro-Electric and Other Power Developments on Large Scale Under Construction in Maryland.

Several large electric projects actually under way in Maryland and others approaching reality will give to the state abundant power for a long time to come. The larger developments include the program of the Consolidated Gas, Electric Light and Power Co. at its Westport Station, Baltimore, and auxiliary construction necessitated, as outlined in the MANUFACTURERS RECORD of July 26; the building program of the Pennsylvania Water & Power Company, at McCall's Ferry; and the development proposed by the Susquehanna Power Company. Two other developments for which tentative plans have been announced call for hydro-electric plants on the Potomac river at Great Falls, and on the Youghiogheny river and its tributaries in Garrett county.

At the Pennsylvania Water & Power Company's McCall's Ferry plant improvements are under way which when completed will increase the present output of 110,000 horse power to 150,000 horse power. Two new turbo-generators of 20,000 kilowatts capacity each are to be installed. Work

began in early spring and the program is to be completed by May. At present the sub-structures have been completed and forms are in place for the superstructure. D. M. Zimmerman, Philadelphia, is the engineer; the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., and the General Electric Co., Schenectady, N. Y., will supply the electrical equipment; and I. P. Morris Co., Philadelphia, Pa., will supply the turbines. A double circuit transmission line has been completed to York, Pa.

The Youghiogheny Water & Electric Co. and the Youghiogheny River Power Co. has presented plans to the Public Service Commission of Maryland for a proposed 100,000 horse power development near Oakland and Friendsville. Charles B. Hawley is the consulting engineer. It is proposed to erect a dam about 70 feet high and 1200 feet long on Deep Creek, and then convey the water through a tunnel one and a half miles long to a power plant on the Youghiogheny river. It is expected that this will give a fall of over 400 feet and permit of the erection of a power house to develop initially 30,000 horse power.

The Susquehanna Power Co. of New York, is going forward with plans for power projects on the Susquehanna river, the initial project to be erected near Conowingo. Preliminary work was started some time ago by Boyd Ehle, engineer, who is on the ground supervising the work.

The Potomac Public Service Co., Hagerstown, is completing an expansion program involving expenditure of \$2,500,000. Sanderson & Porter, New York City, are the engineers and contractors.

Increase of Over \$1,500,000 This Year in Value of Georgia Eggs and Poultry.

Atlanta, Ga., November 21—[Special]—Forty-five hatcheries, with a capacity of 532,300 eggs, are now in operation in Georgia, according to J. H. Wood, professor of poultry husbandry at the State College of Agriculture. This represents an increase of 340,000 eggs over last year, and indicates some of the progress being made under the new agricultural program being adopted throughout the state.

But there is still room for improvement.

"While the value of poultry and eggs produced in Georgia increased more than \$1,500,000 this year," says Prof. Wood, "we are still importing some \$19,500,000 worth annually. According to statistics available, 2491 cars of poultry products were shipped into the state during the past year.

"And while the incubator capacity has risen above the half million mark, this can only supply seven chicks to every farm in Georgia.

"Conditions are ideal for poultry raising in many sections of the state—there is a heavy and increasing demand for poultry and poultry products which now must be shipped in from the North and West, and there is no reason why poultry cannot be made one of the best paying crops on the Georgia farm."

All of the hatcheries in the state were installed by and are operated under the supervision of specialists from the poultry husbandry division of the State Agricultural College, which is doing a wonderful work in introducing more and better poultry in Georgia.

Contracts Let for Kentucky Power Project.

According to advices from G. W. Hamilton, of the Middle West Utilities Co., Chicago, Ill., all contracts have been awarded for the hydro-electric project of the Kentucky Hydro-Electric Co., on the Dix River near High Bridge, as recently described in the MANUFACTURERS RECORD.

These contracts are as follows: The L. E. Myers Co.,

Chicago, general contractors; the Cramp Ship & Engine Building Co., Philadelphia, Pa., water wheels; Allis-Chalmers Manufacturing Co., Milwaukee, Wis., generators; Railway & Industrial Engineering Co., Pittsburgh, Pa., outdoor sub-station; Pittsburgh Transformer Co., transformers; Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., switchboard and switching equipment; L. B. Herrington, Louisville, is vice-president in charge of operation of the Dix River development and L. F. Harza, Chicago, is the engineer.

URGE \$5,000,000 FOR MISSISSIPPI-WARRIOR BARGE LINE IMPROVEMENTS.

Mississippi Valley Association in Annual Convention Calls for Speedy Completion of Waterways Under Construction—Officers Elected.

Memphis, Tenn., November 24—[Special]—Resolutions endorsing the Lakes-to-Gulf deep waterways project and improvement of the channels of the Mississippi River and three of its major tributaries—the Illinois, Ohio and Missouri Rivers—and urging an appropriation of \$5,000,000 for increased facilities of the Mississippi-Warrior barge line through the addition of new and necessary equipment as well as terminal extensions, were adopted by the Mississippi Valley Association at the closing session of the fifth annual convention here this week.

Other approved resolutions call for the speedy completion of the inland waterways projects now actually under way, legislation that would legalize the diversion of water from the Great Lakes to the Chicago sanitary and ship canal, and equalization of ocean and rail freight rates to encourage greater use of the Gulf and South Atlantic ports. Another resolution approved the passage of a flood control bill authorizing the expenditure of \$10,000,000 annually for a period of six years, and declared that the Association "deprecates and condemns any disposition or purpose to reduce the annual appropriation for this purpose."

The Association also went on record as opposing any legislation that will tend to impair the successful operation of the existing railroad system of the country, or interfere with the orderly development of the present national railroad plant to meet the increasing requirements of the nation's business.

Officers were elected as follows: James E. Smith, of St. Louis, president; Thomas F. Cunningham, New Orleans, vice-president at large; Walter Parker, New Orleans, E. T. Harris, Chicago, Walter Dickey, Kansas City, and James C. Andrews, Minneapolis, were elected vice district presidents.

Directors were elected as follows: Alabama—George Gordon Crawford, Birmingham; H. T. Debardeleben, Birmingham, and J. B. Waterman, Mobile. Louisiana—L. F. Alexander, William Allen and M. J. Sanders, all of New Orleans. Texas—Roy Miller, Corpus Christi; and R. D. Bowens, Paris. Mississippi—W. H. Fitzhugh, Vicksburg; and A. B. Learned, Natchez. Arkansas—John R. Fordyce, Hot Springs; Rees Downs, Pine Bluff; and D. M. Allen, Helena. Tennessee—C. H. Huston, Chattanooga; B. L. Mallory, Memphis; and W. G. Thomas, Memphis. Kentucky—D. B. Rose, Louisville; C. F. Richardson, Sturgis; and Con W. Craig, Paducah. Missouri—A. W. Mackie, Kansas City; Edward A. Faust, St. Louis; Charles Waddles, St. Joseph; and Walter E. Windsor, Point Pleasant. West Virginia—John W. Crawford, Parkersburg; and H. Hunter, Wheeling. Pennsylvania—W. H. Stephenson, William Whigham, and Burd Patterson, all of Pittsburgh. Ohio—W. J. Williams, Youngstown; Oscar F. Barrett, Cincinnati; and A. E. Singleton, Portsmouth.

PUBLIC UTILITIES ACQUIRED IN CENTRAL MISSOURI.

Service in 24 Towns Affected—Transmission Lines to be Built and Other Developments to Follow.

Chicago, Ill., November 24—[Special]—Properties of 10 operating Missouri public utility companies in the central part of the state have been acquired by the newly organized Missouri Power and Light Company, Mexico, Mo., whose common stock is owned by the North American Light and Power Company, it was announced by officials of the company here today.

The amount involved was not given out.

The North American Light and Power Company is closely associated with the Illinois Power and Light Corporation in the ownership and management of public utility properties in Illinois, Missouri, Iowa, Kansas, Nebraska and Oklahoma.

Public utility service in 24 Missouri towns is affected by the deal. They are: Mexico, Jefferson City, Centralia, Auxvasse, Vandalia, Wellsville, Sturgeon, Laddonia, Martinsburg, Clark, Hallsville, Perry, Benton City, Montgomery, Thompson, Center, Frankfort, New London, Boonville, Higbee, Huntsville, Kirksville, La Plata and Moberly.

The Missouri Public Service Commission recently granted the Missouri Utilities Company, Mexico, Mo., purchased in September by the Illinois Power and Light Corporation, the right to change its name to the Missouri Power & Light Company. Following the change of name the new company was given permission by the commission to purchase the following named companies:

North Missouri Light & Power Company, Jefferson City Bridge & Transit Company, Jefferson City Light, Heat & Power Company, Boonville Light, Heat & Power Company, Citizens Electric Company, Huntsville Light & Power Company, Adair County Light, Power & Ice Company, La Plata Light, Heat & Ice Company and the Moberly Light and Power Company.

Following the announcement of the merger of the 10 companies into one system, officials of the North American Light and Power Company here said that arrangements have been made with Chicago and New York investment bankers to finance the reorganization and to provide funds for a rapid development of the properties involved.

Transmission lines and other improvements will be built to connect all of the properties into one big system for that section of Missouri which is one of the best agricultural and industrial parts of the state.

Everything will be done, officials say, to develop the electric power plants into a system that will give the best service possible.

It is pointed out that with all the small properties assembled into one system development of service can be much more efficiently carried on than if each unit is being operated separately.

\$60,000 Publicity for Cut-Over Lands.

Mobile, Ala., November 21—[Special]—A fund of \$30,000 is being raised for publicity work in 1924 by the Alabama-Mississippi Improvement Association, organized some months ago by the Gulf, Mobile & Northern Railroad for the sale and development of the vast acreage of cut-over land in territory served by the road. The development department of the railroad will expend a similar amount, so that \$60,000 will be available during the year for the purpose.

The association is very closely allied with the railroad, the plan for sale of the lands making such an alliance necessary. The director of development of the railroad company is auto-

matically the managing director of the association. According to J. B. Haman, director of the development department, everyone connected with the association is being paid by the railroad so that all the funds are available for publicity.

Cut-over lands of Alabama and Mississippi are being placed in condition for farming, and surveyed into tracts of 20 to 160 acres. Under the plan adopted reliable farmers will be able to purchase tracts on terms which provide for no payment during the first five years.

HANGING ROCK'S DEVELOPMENT PLAN.

An Important Mountain Project in Western Carolina for Tourists and Others.

Winston-Salem, N. C., November 20.

Editor Manufacturers Record:

The Hanging Rock Region consists of more than 9000 acres of picturesque scenery in Western Carolina. It is situated twenty-five miles north of Winston-Salem, and has an altitude of 2572 feet.

It has great natural beauty and rugged scenery and is within one hour's ride from Winston-Salem.

It is reached from the East by three good state roads, and two from the West, and entirely surrounded by connecting, improved state roads.

It is within three hours ride by automobile of more than a million of the state's population, and the three largest cities in the state, viz., Winston-Salem, Greensboro, and Charlotte.

Piedmont Springs and Moores Springs, two well known summer resorts, adjoin the Hanging Rock property.

A large hotel to be erected will overlook the whole country from the Blue Ridge thirty miles west, to the eye's limit on the east with the great projecting rock, both west and south, which affords a picture of rare beauty, and interest.

In front of the hotel will be an 18 hole golf course, running completely around a beautiful lake containing between 130 and 200 acres. The ninth and eighteenth and first holes will start and end in the lawn in front of the hotel.

About thirty miles of drives and trails are to be laid out for driving, hiking and horse-back riding.

There are many unexplored points of general interest which lend a hand to draw one to Hanging Rock. One of these is a cave which has been explored only about 400 feet, where several wagon loads of corn cobs were found, carried there by raccoons which abound in large numbers.

There are hundreds of native foxes here, and it is planned to have a large club for fox hunters from the Northern and Eastern cities. It is said there is no other place in this part of the South Atlantic states where so many foxes are found.

Water, electric lights, sewer and good roads will be provided for all the land developed, to meet the demand of the very best class who will become home-owners and patrons of this popular resort.

It is eight miles from the nearest railroad station, and 25 miles to Winston-Salem, 35 miles to Greensboro, 40 miles to High Point, Lexington, and Thomasville, over good state improved roads, more than half of which are hard surfaced.

The Dan, one of the State's principal rivers, is within three miles of Hanging Rock.

One of the through highways from New York, coming through the Valley of Virginia, leading to Florida and the far South, passes within three miles of Hanging Rock. This is partly hard surfaced and will be hard surfaced all the way through North Carolina within the near future, as the Federal and State Governments are now working on it.

J. S. KUYKENDALL.

A Leading Banker Denounces Branch Banking.

The Waukesha National Bank

Waukesha, Wis., October 29.

Editor Manufacturers Record:

Supplementing a former letter will say, I have just received the full text of Comptroller Dawes' hearing before the Joint Congressional Committee at Washington, October 3d. Everybody ought to read it, because it is based on historic facts and not fiction. That is what I try to measure up to. Comptroller Dawes has risen above the sordid over-greedy selfishness of those who tacitly say, "How much pork is in it for me," to a statesmanlike diagnosis of how to preserve this nation's wonderful progress for the whole people.

The dangerous fallacy that because a few banks in a few states—through limited or unlimited branch banking, are given the power to "put out of business" any bank doing a legitimate business, therefore, similar piratical power should be given others, seems nothing short of legalized piracy upon honest endeavor under constitutional freedom. Is this not what has actually taken place in California where more than half of the 900 banks there have been absorbed by monopolists? Is this not the case in the cities of Detroit and Cleveland? Is not the only sane remedy through "cutting out the cancer" before it inoculates the whole body?

Is not Canada an example with now but 14 central banks which have "put out of business" practically all independent banks, thereby substituting some 5000 cream skimming non-tax paying branches, practically all owned in Montreal and Toronto, and the secondary cities of Canada but tails to the big bites? I say are these not an object lesson that should warn us of our peril?

Although propaganda was broadcasted that the service is better, that monopolistic banking is safer and failures of banks less, this has been shot to pieces with the beacon lights of historic facts, and the absurd fallacy that if a few choice spirits are permitted to have "special legislation" which empowers them to "put others out of business," they will not go the limit, is also shot to pieces by historic facts.

For proof read these facts as propounded by Comptroller Dawes. Injustice is the mother of warfare. The eternal principles of justice exalteth nations.

ANDREW J. FRAME, Chairman.

A Bale to the Acre Despite the Boll Weevil.

Atlanta, Ga., November 20.—[Special]—Dr. Andrew M. Soule, president of the Georgia State College of Agriculture, is planning to write a book on "How to Raise a Bale of Cotton to the Acre, Though Boll Weevilled," it is understood, following a series of remarkable demonstrations in Floyd County, Georgia.

To begin with, M. W. H. Collins, a college graduate and an experienced farmer, is county agent for Floyd County. When he saw the boll weevils coming on apace this year, he set aside 100 farms in Floyd County as demonstration farms—or rather, he persuaded 100 farmers to grow "demonstration acres" of cotton under his direction.

He had an idea that, if the proper precautions were taken, a bale to the acre could be grown with or without the boll weevil.

He had little difficulty in lining up 100 farmers. Most of them had encountered the weevil to their loss last season. They were willing to try anything once in an effort to combat this pest. They were even willing to follow the county agent's orders to the letter.

Accordingly, Mr. Collins lined those farmers up and read the riot act to them, figuratively speaking, so far as the boll

weevil was concerned. He secured early-maturing varieties of cotton and saw that it was planted at the right time. He procured calcium arsenate for them, and saw that each one had a dusting machine and dusted his crop at the right time and in the right way.

Above all, he saw that the farmers on his demonstration plots used their best land, and did not plant more acres than they could properly take care of.

He watched over those cotton plats day and night, helping, advising, and working for their success.

And now that returns are beginning to come in, Mr. Collins has demonstrated that he is right, a bale of cotton to the acre can be raised despite the weevil. Out of the 100 farms, 40 have already reported a bale to the acre from their cotton patches, and other farms reporting have come so close to the mark that their owners haven't a single kick coming.

Mr Collins has demonstrated that a bale can be grown to the acre, provided that the proper methods are used at every stage of the game.

But in the meantime, Dr. Soule is contending that a bale to the acre can be raised by farmers in any county of the state, if they will secure a scientifically trained county agent and follow his advice.

"Success in raising cotton," says Dr. Soule, "rests, I am more and more convinced, upon three factors. First, the employment of a county agent who is onto his job. Second, in the support of the business men and bankers of each county. And third, in the readiness of the farmers of the section to work and follow the directions worked out by the government experts on weevil control.

"Of the three, I am convinced that the live county agent, who is able and willing to show farmers the way by real, practical demonstrations, is the most important factor."

Contract Let for \$3,000,000 Hotel.

Contract for the erection at Louisville of the Kentucky Hotel for the Citizens Hotel Co., W. K. Stewart, chairman of the executive committee, was awarded last week to Rommel Bros., Louisville. A photograph of the building as it will appear when completed, together with a general description appeared in the MANUFACTURERS RECORD, November 8. It will represent, when complete, an investment of about \$3,000,000.

A bond issue for the hotel has been taken by Caldwell & Co., of Nashville and New York, through C. H. Hutton, representative.

Brinton B. Davis is architect for the new structure. The officers of the company are: W. K. Stewart, president; Charles L. Long, vice president; C. A. Taylor, secretary; Noland S. Milton, treasurer.

Plan \$200,000 Hotel for Vero, Fla.

Fort Pierce, Fla.—The Southern Mercantile Hotel Co. has been organized at Vero with a capital of \$200,000 to build a hotel there. Its officers are: Paul Berndt, president; Freeman Knight, vice-president; Louis Harris, treasurer; and J. L. Hutchinson, secretary. Among the directors are: L. A. Ybanez, of Lake Worth; G. A. Rice, of Melbourne; J. D. Edwards and Alex. McWilliams, of Vero.

Acquires Site for \$1,500,000 Hotel.

Birmingham, Ala.—T. H. Molton, of the Molton Realty Co., has purchased a site at a cost of approximately \$200,000 for a proposed \$1,500,000 hotel. Tentative plans call for a 10-story structure to contain about 350 rooms.

Mr. Molton is now owner of the Molton Hotel, a down town hostelry.

THE IRON AND STEEL SITUATION

Pig Iron Buying Movement a Favorable Factor in Present Situation.

Pittsburgh, Pa., November 26—[Special]—At last positive action of a favorable character is occurring in the iron and steel situation—the pig iron buying movement. The whole iron and steel market turned quiet last April, the trade then taking to running on momentum, while lately the favorable news has been of a negative character, that prices, demand and consumption were holding up well, and much better than most observers had expected.

The pig iron buying movement has involved between 500,000 and 750,000 tons. The precise number of tons means little, the important point being that the buying represents a month or so of production and shows that consumers concluded the bottom had been reached in prices, while the actual buying supports the market and makes it certain there will be no further declines in the near future. Small advances are likely in some districts. Averaging all districts, pig iron has declined from its top point, reached late in March, about \$10 a ton.

It is noteworthy that the pig iron buying has been almost wholly in foundry grades, there being little activity in steel making iron. Nevertheless the stabilizing of the pig iron market largely withdraws the unfavorable sentimental influence the declining pig iron market had been having upon sentiment in the finished steel markets, which have not declined, except in two or three spots, and then only slightly, since the advances ended last April.

While there was only one-half per cent decline in the rate of steel production from September to October, there has since been a tapering off, and the ingot rate now is estimated at 38,500,000 tons a year, which is 6 per cent under the rate in September and October, 21 per cent under the record rate last April, and 20 per cent above the average rate in the four post-war years 1919 to 1922, inclusive. Yet the common view is that steel consumers have been reducing their stocks of late, so that the rate of actual ultimate consumption is plainly remarkably high.

With the steel market in its present swing, buying will become lighter as the end of the year approaches. There are possibilities that a mild buying movement will occur in December, for that is what occurred, rather unexpectedly, a year ago. Such buying would be for first quarter and would hardly arrest the decline in steel mill operations this year.

Those who expect the railroads to buy 80,000 to 100,000 freight cars in the near future may be disappointed, for there is no evidence that the railroads need additional cars as much as they do other improvements, seeing that they have for months past been handling smoothly and expeditiously a record volume of freight business, without having received all the cars previously ordered. The freight car shops are still running and some have old orders to carry them into January or February. The railroads are in position to spend money and will probably do so by way of improvements that will reduce operating costs. They have already bought very fully in rails for the first half of the new year.

Fabricated steel business has been running lighter since October 1 than was expected for the season of the year on the basis of the fair business done in September. Investors seem to be awaiting a decline in building costs.

Tin plate promises to have a new record year in 1924,

engagements at the tin plate mills being large already. Sheet prices are holding up as well as formerly. Pipe mills are running better than other finishing branches of the steel trade. Wire mills are doing moderately well, all that could be expected at this season. Neither pipe nor wire prices are under any pressure. Bars, shapes and plates may undergo some readjustment, and certainly will if any considerable volume of business hinges upon price. The buying now being done is for prompt shipment and price is not a consideration.

In the local market there has been more pig iron buying, but as usual little activity relative to that in other districts. Foundry and basic grades are off \$1 in the week and it is thought are probably at bottom, with foundry at \$21, valley and basic at \$20, valley. Bessemer is easy at its former figure of \$23, valley, and may decline a trifle more.

Marked Improvement in Pig Iron Sales.

Birmingham, Ala., November 26—[Special]—The Birmingham pig iron market is showing decided improvement. Sales of the product lately have been quite numerous. Production will be active through the first quarter of the coming year on iron already sold and it is not improbable that the buying movement will cause continued operation through the second quarter. When iron had reached what was believed the low mark, buying started in and within a few days it developed that there was a need for the product. It is estimated that upwards of 250,000 to 300,000 tons of pig iron have been sold for delivery during the next five to six months. Much of the iron went at \$20 per ton, No. 2 foundry, and less, Birmingham. An advance of \$1 was announced by the middle of the past week and a belief is expressed that before the end of the year there will be warrant for \$25 per ton iron.

Local melters are participating in the activity springing up. Both the soil and pressure pipe makers are preparing for a long period of operation at plants and the manufacture and delivery of great quantities of pipe. Stove foundries are also looking after needs. No little of the iron sold for future delivery will leave the Southern territory.

The Alabama Company will blow out one of the two Gadsden furnaces by December 1, repairs being needed. This company has very little iron on the yards, has not been selling under \$22 per ton and will be able to fill orders and care for some of its regular customers. If need be, the furnace under repair can be started up in a short time. The repairing will be completed within a few weeks in any event. The Sloss-Sheffield Steel & Iron Company, which has three out of eight blast furnaces in operation will start up another ironmaker within another two weeks. The company had upwards of 65,000 tons of iron on the yards a few weeks ago, but a statement recently was to the effect that not only was the iron from the three furnaces being sold right along but some iron was being taken off the yards.

Soil pipe makers are feeling an improvement in business despite the recent advance of five points in quotations, standard pipe selling at \$55 per ton. These interests will use considerable pig iron. The pressure pipe makers are looking forward to a big winter business and are urging consumers to place their orders now that preparations can be made for prompt deliveries.

The demand for pipe this year shows no signs of weakening and the condition of the order books indicate that very soon pipe (in smaller sizes) for first quarter delivery,

1924, will not be available except to customers whom the companies had previously promised to take care of. In some sizes the pipe companies are already booked into the second quarter. It is also pointed out that there is practically no foundry stocks of pipe in any part of the country. Consumption of cast iron pipe in 1922 equalled the highest on record and the 1923 figure will make a still higher mark. It is also set forth that general conditions of the country will not affect the pipe market, as demand for cast iron pipe depends upon other things. The effort for winter buying proceeded so successfully last year that it is being urged now and with considerable result, delivery and manufacturing problems the past summer having been met with much ease. The prediction is made that there will be no drastic reduction in prices and the fact that the pig iron market has started to recover means much.

Other iron using industries of the Southern territory and elsewhere which get their iron supply from the Birmingham district are also reporting activity which promises to have wide results.

N. F. S. Russell, president, and other officers of the United States Cast Iron Pipe & Foundry Company, headquarters in Burlington, N. J., together with resident and sales managers in various territories throughout the country, held a conference in Birmingham the past week and discussed the cast iron pipe market, present conditions and future prospects. The numerous representatives of the big pipe concern had an opportunity of seeing pipe manufactured and were interested in the DeLavaud method of pipe making.

The coke market has not shown any improvement. By-product oven coke is selling at \$5 per ton for the foundry class. Bee-hive oven coke is being held for \$7. The demand is fairly good. There is not much coke on yards to be offered on the open market.

The coal mining operations are also lagging some in Alabama, steam coal demand still being slow. Domestic coal is in sharp demand.

The steel market is showing some improvement. Rail orders, as previously announced will call for steady operation at the Ensley plant for several months. Wire and nails have been sold in quantity also and there will be warrant for steady operation of the plants of the district. Expectations are that the new year will start in with numerous orders for various shapes in steel in hand.

Orders have been received for railroad cars at the plant of the Chickasaw Shipbuilding & Car Company and a good start will be made at this plant on the first of the year. A record of 40 cars a day was made recently.

The scrap iron and steel market continues lifeless. Consumers of old material are finding pig iron cheaper and are not buying scrap. All quotations for old material are weaker and reductions are noted in practically the entire list. Dealers are keeping up stock in hopes of improvement on the turn of the year.

Quotations on pig iron and iron and steel scrap follow:

PIG IRON

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$20.00 to \$21.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$20.50 to \$21.50; iron of 2.75 to 3.25 per cent silicon, \$21.00 to \$22.00; iron of 3.25 to 3.75 per cent silicon, \$21.50 to \$22.50; iron of 3.75 to 4.25 per cent silicon, \$22.00 to \$23.00; charcoal iron f. o. b. furnaces, \$32.00 to \$33.00.

OLD MATERIAL

Old steel axles	\$19.00 to \$20.00
Old iron axles	23.00 to 24.00
Old steel rails	15.50 to 16.50
Heavy melting steel	14.00 to 15.00
No. 1 cast	17.00 to 18.00
Stove plate	15.00 to 16.00
No. 1 R. R. wrought	13.50 to 14.00
Old car wheels	16.50 to 17.00
Old tramcar wheels	17.00 to 18.00
Machine shop turnings	8.00 to 9.00
Cast iron borings	9.00 to 10.00
Cast iron borings (Chem.)	17.00 to 17.50

RAILROADS

Southern Railway to Spend \$20,000,000.

The proceeds of the \$20,000,000 of 6 per cent development and general mortgage bonds sold recently by the Southern Railway Co. to J. P. Morgan & Co., and other bankers and banks in New York, will be used according to President Fairfax Harrison, for additions and betterments to the company's property, including enlargement of yard, shop and freight facilities, additional tracks and grade improvements. Mr. Harrison also remarks that it is estimated that these additions and improvements will effect savings in operation equivalent to 20 per cent on the amount so invested, as contrasted with a cost of about 61-2 per cent to the company for the money. He further states that since the development and general mortgage was created in 1906, capital expenditures on the property subject to the mortgage have been over \$145,000,000, of which more than \$50,000,000 were derived from surplus earnings. "The new capital," he says "has been used to provide improved and income producing facilities for the efficient and economical handling of traffic, and has been responsible in considerable degree for the substantial increase in earnings during recent years."

Big Passing Sidings to Expedite Traffic.

A report that the Florida East Coast Railway Co. would be double-tracked this year from Saint Lucie to White City, has, according to a letter received by the MANUFACTURERS RECORD from H. N. Rodenbaugh, Genl. Mgr., no greater foundation than the fact that the company is putting in some long passing sidings in the neighborhood of Fort Pierce, and while these may at some time in the future become parts of a second track, there is no actual double tracking work now in progress there. In the operation of a busy main line such as that of the Florida East Coast Railway, the building of long passing sidings is often done at suitable points to relieve congestion of traffic.

Chesapeake & Ohio Wants More Cars.

The Chesapeake & Ohio Railway Co. is reported in the market for the construction of 2000 steel cars and it may be that 2000 more may be built by the company, according to news made public in New York. The company is now having completed 500 steel underframe and steel end box cars at the plant of the Newport News Shipbuilding & Drydock Co., Newport News, Va., and as that place is the tidewater terminal of the Chesapeake & Ohio System it is not unlikely that some of the additional cars will be constructed there.

Extensions Contemplated.

According to a report from Hamlet, N. C., plans are under consideration for the construction of a branch of the Rockingham Railroad, which is a connection of the Atlantic Coast Line, into Hamlet. The line runs northward from Bennettsville, S. C., where connection is made with the Coast Line, to Rockingham, N. C., 31 miles, and a few miles west of Hamlet, which is on the Seaboard Air Line. It is also contemplated to extend the line from Rockingham to Ellerbe, N. C., several miles.

Charter for a Short Line.

A report from Charleston, W. Va., says that Antrim G. Barnes, Gildea G. Hoffman, Harvey E. Fehr, George B. Hooper and Lawrence E. Clark, all of Cleveland, Ohio, have been granted a charter to build a short railroad in Boone County, W. Va., with capital stock of \$1,000,000. The points to be connected, it is stated, are Ashford and Seth, both of which are on a branch of the Chesapeake & Ohio Railway, in the coal regions.

TEXTILE

BIG MERGER UNITES SOUTHERN AND NEW ENGLAND COTTON MILLS.

Group Will Have 586,000 Spindles, 12,000 Looms, and Combined Sales Will Exceed \$30,000,000.

Consolidation of the Southern textile mills recently acquired by Lockwood, Greene & Co., engineers, Boston with the International Cotton Mills of Boston has virtually been effected by the formation of plans last week at a meeting of the International directors for the organization of the New England Southern Mills, a large cotton manufacturing company.

The present organization of the International Cotton Mills, a Massachusetts corporation, will be retained, but the name will be changed to New England Southern Mills, and stockholders have been notified of the plans. Over 80 per cent of the spindles of this group are in new mills or in additions to old mills. The new plants included in the consolidation are:

The Lancaster Cotton Mills	Lancaster, S. C.
Fort Mill Manufacturing Co.	Fort Mill, S. C.
Eureka Cotton Mills	Chester, S. C.
The Springstein Mills	Chester, S. C.
Pelzer Mfg. Co.	Pelzer, S. C.
Tucapau Mills	Tucapau, S. C.
Stark Mills	Hogansville, Ga.

At the Stark Mills a new mill building and village, described in the MANUFACTURERS RECORD of November 22, is now being constructed. The product of the mills is tire fabric.

Additional plants of the International which go into the combination are the Cosmos and Imperial located in Canada; these have been very successful. Hogansville and LaGrange, two modern mills equipped to make hose and belting duck, located in Georgia; Lisbon Mills, a yarn mill at Lisbon, Maine; the Lowell plant, consisting of a spinning mill of 30,000 spindles built in 1920, and a weaving mill in which is being installed 756 new wide Draper looms for the manufacture of wide sheeting.

These mills, except at Lowell where new looms are being installed and the Stark Mills under construction, are all running on full time with the product sold well ahead.

The capitalization of the New England Southern Mills, the parent corporation, will consist of approximately \$4,000,000 International notes due in 1929 and now outstanding, \$4,000,000 of new notes, \$5,000,000 of 7 per cent prior preference stock, \$6,500,000 of preferred stock and 250,000 shares of no par value common. The company will own outright certain properties and will have control through common stock of the properties of the other remaining companies.

The annual sales of the combined companies will exceed \$30,000,000. The number of employes will be approximately 6500. An idea of the size of the group can be gained when it is considered that there will be 586,000 spindles, 12,000 looms, and 4,593,000 square feet of floor space in the manufacturing buildings alone. There also goes with the mills a large amount of outside property, including more than 2150 houses, schools, churches, stores and community buildings, and 10,000 horse power of water power owned outright by the companies. The mills will use when running at capacity about 140,000 bales of cotton annually. There are 20,000 spindles in Canada, 70,000 spindles in New England and the remaining 486,000 spindles are all in South Carolina and Georgia.

The plants are reported in excellent physical condition and capable of producing goods at the lowest possible cost for

their respective qualities. The consolidation gives a great diversity of product, including—print cloths, shade cloths, wide sheeting, sheeting and drills for export, gingham, hose and belting duck and tire fabrics.

The companies will be under the management of Lockwood, Greene & Co. Lawrence & Co. will be the sole selling agents.

Col. Leroy Springs, will become a director of the New England Southern Mills.

The only public financing required to effect this consolidation will be the sale of \$4,000,000 of new notes, which will later be offered by Lee, Higginson & Co.

Construction to Start at Burlington Mill.

Gastonia, N. C., November 23—[Special]—Additional information relative to the plans of the Gastonia Cotton Manufacturing Co. for transferring its operations to Burlington is given in an announcement made this week by J. S. Love. Mr. Love's statement is as follows:

"It looks now as if we will move our plant during the summer; that is, sell and deliver our equipment to the Burlington Mills, Inc., a new corporation with \$750,000 capital, which has been chartered. Major J. Spencer Love, our present manager, will be the manager of the new company.

"We will start at once construction of buildings for our mill at Burlington. It is probable that we will build a one-story building and warehouse containing approximately 65,000 square feet. The mill village will contain about 75 houses. No contracts have yet been placed.

El Paso Mill to Be Under Way Soon.

Discussing the plans for the proposed plant of the El Paso Cotton Mill, at El Paso, Texas, Benj. Sherrod, vice-president and general manager of the Thede-Sherrod Lumber Co. gives the following additional information regarding it:

"The new textile mill to manufacture cotton cloth is an accomplished fact. The capital has been over subscribed by local business men, a substantial part of which is paid in, charter obtained and organization completed.

"The officers and directors were named from the most successful business men of the city, A. P. Coles being president, and the active management has been vested in J. Paul Henderson, a practical and successful mill operator from Waco. The construction of the plant will begin just as soon as a site is definitely selected."

Cotton Exports Increase Sharply.

Houston, Tex.—In one day recently five vessels loaded with more than 65,000 bales of cotton for export left Port Houston. About 83,000 bales of cotton were shipped in the first half of this month. To date this year approximately 558,000 bales have been exported as compared with the total of 358,000 bales for the corresponding period of last year, and with 178,400 bales, the total for the same period of 1921.

At Galveston eight vessels carrying about 80,000 bales left within a few days for foreign ports, and waterfront laborers were forced to work overtime to speed up shipments.

\$1,000,000 for Three Schools at Alexandria.

Alexandria, La.—Favrot & Livaudais, New Orleans, La., are the architects for three school buildings to be erected by the Rapides Parish School Board, W. J. Avery, Secretary, at an estimated cost of \$1,000,000. Two will be of brick to cost \$100,000 and \$225,000 each, and the third will be of brick and stone, costing about \$660,000. Bonds for these school buildings were voted on November 15.

GOOD ROADS AND STREETS

\$20,000,000 for South Carolina Roads and Bridges in Five Years.

Columbia, S. C., November 24.—“During the five years in which work has been done on the construction of the roads and bridges of the state highway system of South Carolina, the expenditures will amount at the end of the year to a total of \$20,849,765—on roads, \$17,968,082, and on major bridges, \$2,863,783,” according to an article by Maj. R. G. Thomas, statistical engineer of the state highway department, in the November issue of the South Carolina Highway Bulletin, which is now on the press. In the total, the federal aid funds are about \$5,000,000.

“In addition to the construction work, the state highway department has directed the expenditure of a total of \$1,721,000 for maintenance and betterment,” Major Thomas says.

He lists the expenditures by years as follows:

1919: For roads, \$2,525,660.

1920: For roads, \$2,547,586; for bridges, \$124,000.

1921: For roads, \$4,419,300; for bridges, \$576,000; for maintenance or betterment, \$272,000.

1922: For roads, \$4,350,000; for bridges, \$838,000; for maintenance or betterment, \$474,000.

1923: For roads, \$4,143,454; for bridges, \$1,325,600; for maintenance, \$975,000.

Major Thomas makes the notation that the figures for 1923 are estimated as there are still two months to consider. He took the totals as reported at the end of October and added 10 per cent for the month of November and 10 per cent for December.

“It thus appears,” continues Major Thomas, “that in five years there has been expended on the state system for roads and bridge construction and for maintenance or betterment an amount aggregating more than \$22,500,000, for the last three years an average yearly expenditure of \$5,791,118, or nearly \$6,000,000 per year.

“The roads of the state system constitute less than 7 per cent of the public roads of the state and the expenditures on the other roads by the several counties are in addition to the above amounts.

“The bonds for roads and bridges issued by the counties and townships from 1917 to 1922 amount to a total of \$19,864,500 and the authorized issues for 1923 amount to \$4,350,000, making an aggregate of \$24,214,500.

“The amount of the motor vehicle licenses to the counties for maintenance in 1923 will be about \$727,000 and the proceeds of the one cent per gallon tax on gasoline to the counties will be about \$500,000. The amount to the state highway department from one cent per gallon for maintenance will amount from March 23 to end of 1923 to about \$427,000.

“The federal aid apportionments to South Carolina amount to \$6,635,518.27 and at the end of 1923 about \$5,000,000 of this amount will have been expended on the construction of roads and bridges on the state highway system.”

Paving Brick Shipments Continue Heavy.

That the paving season, because of a wet spring generally and a late start, is running later in the fall this year than is customary, is indicated by the continued heavy shipments of vitrified paving brick as reported by the National Paving Brick Manufacturers Association. Shipments for the month of October were 34,287,000 as against 34,761,000 for September. The total number of brick manufactured was 34,317,000 for October and 34,457,000 for September. Stock on hand was reported at 76,950,000 for October as against 86,530,000 for September.

Florida Road and Bridge Projects.

Road building and road improvement continue to be the leading class of construction in West Florida. In addition to the recently completed Pensacola Gulf Beach Highway, costing over \$400,000, which runs from Pensacola to the Gulf of Mexico, seventeen miles away, there are other road-building projects now under way. Advertisements have been placed for bids on a large parking space at the terminus of the Pensacola highway, the cost to be between \$27,000 and \$48,000.

Construction will soon begin on Freedom Bridge, the last bridge link of the Old Spanish Trail in Florida. Bids will be called for on December 11 for constructing the west approaches. The principal items included are clearing and grubbing of two and one-half acres; 2450 yards common excavation; one pile trestle bridge sixty-four feet long; and one pile trestle bridge thirty-two feet long. This bridge is being built jointly by two counties.

The Board of County Commissioners of Escambia county, has authorized advertisements for bids on \$250,000 worth of road paving bonds, the bids to be received December 18. They may be purchased either as a whole or in amounts of \$50,000 or more. They are a part of a road paving bond issue of \$2,000,000.

Many Road Bids to Be Received.

Bids will be opened December 10 by T. M. Campbell, Jr., county auditor of Anderson County, Texas, at Palestine, for construction of 9.8 miles of reinforced concrete slab pavement, estimated to cost, including grading, drainage and paving, \$330,000. Funds will be obtained from the \$1,500,000 bond issue voted by the county. E. W. Davis is the county engineer.

The State Highway Commission, Frankfort, Ky., has asked for bids until December 10, for construction of roads in Hart, Larue, Harrison, Garrard and Boyle counties, totaling about 25 miles, and for a large bridge in Garrard and Boyle counties across the Dix River, which will necessitate the use of 1450 cubic yards of concrete, 5000 pounds reinforcing steel, 450,000 pounds structural steel and 10,000 feet of creosoted lumber.

William Peterson, auditor, Lavaca County, Texas, will receive bids at Hallettsville, Tex., until December 20, for grading, draining and paving Section B of State Highway No. 3B.

\$1,500,000 Hillsborough County Bonds Sold.

Tampa, Fla.—The remaining half of Hillsborough County's \$3,000,000 road bonds were sold to Lehman Bros., New York, and associates at \$99.28 recently by the Board of County Commissioners.

The first half of the issue was sold in November, 1922, to a Jacksonville bank and Harris, Forbes & Co., of New York, who paid a premium of \$23,500.

\$1,200,000 Highway Bonds Voted.

El Paso, Tex.—El Paso County has voted a road bond issue totaling \$1,200,000. In addition to this sum made available for highway improvements the county will receive about \$440,000 in state aid. The date of sale has not yet been set.

E. B. McClintock is county judge, and L. A. White, county engineer.

LUMBER AND BUILDING MATERIALS

Increase in Shipments and New Business.

Washington, November 22—Reports showing the trend of the lumber movement of the country for the week ending November 17 received by the National Lumber Manufacturers Association from 389 of the larger commercial sawmills of the country, as compared with revised reports from 397 mills of the preceding week, indicate that, while there was a falling off in production, there was a substantial increase in shipments and new business. Production decreased 5,512,023 feet, as compared with the preceding week, and shipments increased 9,204,104 feet and orders (new business) increased 9,150,824 feet.

For all the mills of the 7 reporting associations, shipments were 93 per cent and orders 88 per cent of production. For Southern Pine Association mills these percentages were 94 and 83, and for the West Coast mills 91 and 94. Most of the mills have a normal production for the week, according to which actual production was 106 per cent, shipments 96 per cent and orders 90 per cent.

The following table compares the lumber movement for the three weeks indicated:

	Past Week	Corresponding Week 1922	Preceding Week 1923 (Revised)
Mills	359	393	397
Production	243,478,756	218,112,532	248,990,779
Shipments	226,644,500	177,431,074	217,440,396
Orders	213,483,464	211,170,639	204,332,640

Reports received this week from 14 of the California Pine Mills, representing 44 per cent of the California pine cut, give their production as 16,322,000 feet, shipments 13,134,000 feet and orders 12,478,000 feet.

Compared with like periods of 1922, the lumber movement for the first 46 weeks of 1923 is as follows:

	Production	Shipments	Orders
1923	10,986,611,940	10,891,249,532	10,329,056,108
1922	9,698,038,065	9,252,095,141	9,527,710,464
1923 Increase ...	1,288,573,875	1,639,154,391	801,345,644

The West Coast Lumbermen's Association wires from Seattle that production for last week was 112,273,511 feet, sales 106,030,134 feet, and shipments 101,926,366 feet. Production for reporting mills was 26 per cent above normal, new business 6 per cent below production and shipments were 4 per cent below new business.

LUMBER MOVEMENT FOR FORTY-SIX WEEKS, AND FOR WEEK ENDING NOVEMBER 17.

	Production		Shipments		Orders	
	1923	1922	1923	1922	1923	1922
Southern Pine Association:						
Total	3,557,232,721	3,415,209,809	3,610,288,870	3,292,141,851	3,402,793,698	3,453,149,842
Week (130 mills)	76,204,300	71,020,902	71,981,709	67,041,184	62,918,586	74,359,696
West Coast Lumbermen's Ass'n:						
Total	4,675,771,237	3,901,118,460	4,819,032,399	3,600,465,523	4,682,530,147	3,690,914,567
Week (133 mills)	112,273,511	98,562,181	101,926,366	65,334,728	106,030,134	92,642,393
Western Pine Mfrs. Association:						
Total	1,320,585,000	1,091,312,000	1,141,736,000	1,083,292,000	1,059,325,000	1,113,775,000
Week (38 mills)	30,027,000	25,096,000	22,108,000	17,439,000	22,400,000	17,150,000
California Redwood Association:						
Total	439,123,000	365,895,000	415,941,000	321,860,000	404,010,000	344,830,000
Week (14 mills)	10,329,000	9,054,000	7,945,000	7,598,000	5,001,000	8,532,000
North Carolina Pine Association:						
Total	403,058,682	436,211,381	415,303,763	445,569,538	330,670,363	434,690,055
Week (45 mills)	9,055,945	7,849,600	10,234,425	7,900,455	5,197,744	8,922,550
Northern Hemlock & Hardwood:						
(Softwood) Total	115,225,000	92,404,000	114,774,000	129,782,000	98,518,000	117,395,000
Week (19 mills)	1,302,000	1,270,000	1,504,000	2,347,000	1,345,000	1,824,000
Northern Pine Mfrs. Association:						
Total	475,616,300	395,887,415	374,173,500	378,984,229	351,208,900	372,956,000
Week (10 mills)	3,100,000	5,259,849	7,765,000	9,770,707	6,309,000	7,740,000
General Total for 46 weeks:						
(Softwood)	10,986,611,940	9,698,038,065	10,891,249,532	9,252,095,141	10,329,056,108	9,527,710,464
Northern Hemlock & Hardwood:						
Hardwood (46 weeks)	120,567,000	.....	144,879,000	.....	130,471,000	.....
Calif. White & Sugar Pine Mfrs.:						
(46 weeks)	1,097,414,000	.....	659,323,000	.....	.....	.....
General Total for Week	243,478,756	218,112,532	226,644,500	177,431,074	213,483,464	211,170,639

California White & Sugar Pine reports not included in totals, because "orders" not reported.

The California White and Sugar Pine Manufacturers Association wires from San Francisco that several more mills are closed down for the season, that car supply is normal and labor plentiful and that there has been no extreme snow or fire.

From Minneapolis the Northern Pine Manufacturers Association wire that of 10 mills reporting for the week, only 3 are now sawing.

Weekly Report on Southern Pine.

The Southern Pine Association for the week ended November 16 reports as follows on 130 mills:

	Cars	Feet
Orders on hand beginning of week	10,223	213,977,613
Orders received during week	3,006	62,918,586
TOTAL	13,229	276,896,199
Shipments during week	3,439	71,981,709
Orders on hand end of week	9,790	204,914,490

Production for the week was 76,204,300 feet. Shipments were 4,222,591 feet below production or 5.54 per cent. Orders were 13,285,714 feet below production or 17.43 per cent. Orders were 12.59 per cent or 9,063,123 feet below shipments. The week was 7,625,383 feet or 9.10 per cent below normal production and orders were 24.94 per cent or 20,911,097 feet below normal production. The decrease in orders on hand amounted to 9,063,123 feet or 4.24 per cent.

New Hardwood and Veneer Manufacturing Plants Begin Operations at Plaquemine, La.

Plaquemine, La.—The band mill and veneer mill of S. B. Anderson & Son, Inc., have been placed in operation here. Hardwood lumber of all kinds and veneers from cottonwood, willow and gum will be the products. A single band mill with all the necessary equipment, edger, trimmer and slasher, etc., is used. The mill is equipped with a hog and has four boilers.

It is located on Bayou Plaquemine, just outside the corporate limits of this place. Through the network of bayous and rivers practically all the timber of the Atchafalaya Basin is available. At the mouth of the Bayou it empties into the Mississippi River near the Government locks, so that timber

from the Mississippi section can come in either by rafts or barges. The mill is also on a branch of the Texas & Pacific Railroad. It thus has direct connection with New Orleans both by river and rail. The corporation owns or controls approximately 30,000 acres of excellent timber land.

The company owns several steel barges which are towed by its own boats. The logs are lifted from the barge to a ramp by means of a derrick, and conveyed into the mill.

S. B. Anderson, president of the company, has been actively engaged in the lumber business for more than half a century.

Concrete Block and Brick Plant for Ashland.

Ashland, Ky.—Early next month the Person Slagtex Company will begin operation of a plant for the manufacture of concrete blocks and bricks, the daily capacity being 1500 and 40,000, respectively. The bricks will be made in a variety of colors and rough in texture. They will be suitable for general building and industrial purposes and produced to compete in price with clay and brick.

W. M. Person, formerly connected with the Ashland By-Product Coke Co., heads the new concern. Most of the machinery has arrived at the plant and is now being installed.

Expect Lumber Industry Standardization.

Washington, November 23.—“The lumber industry has taken a forward step in its plan for standardization of the industry.”

Secretary of Commerce Hoover made this statement recently commenting upon a plan submitted to him by the Central Committee on Lumber Standards.

Mr. Hoover said he expected ratification of the standardization plan on December 12, at a conference to be held at Washington, and to be attended by all elements of the lumber industry and by representatives of the Government.

North Carolina Pine Report.

The North Carolina Pine Association reports as follows on 38 mills for the week ending November 17:

Orders	Total Feet
Shipments	4,541,744
Production	8,579,065
Normal Production	8,259,245
	10,404,000

The orders were 47 per cent below shipments, 47 per cent below actual production and 54 per cent below normal production. Actual production was 20 per cent below normal. The week shows a decrease in orders of 2,029,486 feet, or 32 per cent.

1,000,000 Pecan Trees for North Carolina.

One million pecan trees in eastern North Carolina within four years is the goal of a campaign just started by the agricultural forces of the state. The Extension Division of the North Carolina State College and the Department of Agriculture are fostering the movement.

H. M. Curran, forester, and W. N. Rope, of Petersburg, Va., have direct supervision of the campaign. The plan is to secure 25 men in each county who will agree to plant 100 pecan trees each year for four years, and to give all possible assistance to these men. Varieties which have been tested in North Carolina over a period of 15 years and found ideally suited to soil conditions of the section will be planted. Reduced prices on big orders have been obtained.

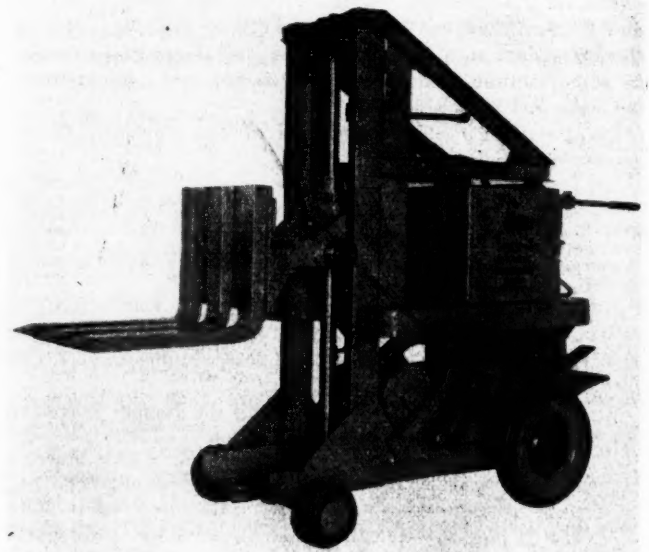
The success of this movement will mean practically a new product for the state, and an additional agricultural income of many thousands of dollars. Later on it is suggested that a Virginia-Carolina Pecan Growers Association be organized to handle the distribution of the nuts.

MECHANICAL

“Automatic” Fork Truck.

The last ten years of industrial life have seen many new developments in the application of electric haulage units to interplant transportation and one of the latest is the fork truck manufactured by the Automatic Transportation Company of Buffalo, which promises great adaptability as shown in the accompanying illustration.

The big advantage of this equipment is the fact that it will automatically lift from the floor barrels, boxes, bundles of metal sheets, plates, etc., without the aid of skids, thus eliminating a large investment in skid equipment, and also conserving floor space. The principle of its operation is that the



TRUCK WITH FORK PARTIALLY ELEVATED.

tapered steel forks will slide under the material to be carried without assistance of any kind. Almost any kind of material can be handled by this machine, the only requirement being that the width and length of the forks conform to the width and length of the material to be handled. For this reason the forks are furnished in various sizes.

The truck has a lifting capacity of between 3000 pounds and 4000 pounds, depending on the nature of the materials handled, and is built in various lifting heights. In all models, however, the loads can be started and stopped at any height. The picture shows the fork when partly lifted.

The machine is equipped with two motors, one for propelling the truck and the other for elevating, both drawing power from the truck battery. The lift is by means of a single oversize screw revolving in a large oversize bronze nut, provided with an oil magazine for thoroughly lubricating the screw at all times. The elevating mechanism is placed below the battery box to afford the best possible protection.

The front wheels are 9 inches by 5 inches rubber tired, and fitted with Timken bearings to give the greatest mobility with the least friction. This is an important factor as the entire load is carried over the front wheels.

Leo M. J. Dielmann of San Antonio, Tex., is preparing plans for a \$250,000 addition to the Woodmen of the World hospital, northeast of Alamo Heights, San Antonio.

Construction Department

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

Airplane Plants, Stations, Etc.

D. C., Washington—Roland Walsh, Major, Q. M. C., Munitions Bldg., let contract to Ennis & Hare, 1933 E. 31st St., Baltimore, Md., to erect 60x33-ft. dope house at Bolling Field, for the painting of airplane wings; reinforced concrete and tile construction, concrete floors, asbestos covered corrugated iron roofing.

Bridges, Culverts and Viaducts

Ala., Anniston—Calhoun County Board of Revenue will let contract soon to build 3 steel bridges over Big Hillabee Creek on Calhoun County side of Horseblock Mountain.

Ala., Marion—Details under Road and Street Construction.

Fla., Hialeah—Details under Road and Street Construction.

Fla., Sarasota—Sarasota County, Board of Commrs., plans building 2 bridges with connecting roads from mainland to Siesta Key and Treasure Island, at Stickney Point and Blackburn Point; all contingent upon bond issue to be voted.

Fla., West Palm Beach—Details under Road and Street Construction.

Ga., Lyons—State Highway Dept., Atlanta, Ga., plans building bridge across Altamaha River on southern border of County, connecting Lyons and Baxley.

Ga., Quitman—Brooks and Cook Counties let contract to Luten Bridge Co., Atlanta, Ga., at \$69,627, to build steel and concrete bridge over Little River, on main highway between Quitman and north; to replace present structure.

Md., Baltimore—B. & O. R. R. Co., H. A. Lane, Ch. Engr., Baltimore, plans building bridge over Barclay St., between 25th and 26th Sts.; estimated cost \$75,000.

Mo., Stoutsville—Wabash Ry. Co., R. H. Howard, Ch. Engr., St. Louis, Mo., plans expending \$40,000 to improve bridge over Salt River, near Stoutsville.

Okla., Enid—Enid Bridge Co., capital \$10,000, incorporated by A. J. Ranger, Chester B. Lewis and others.

Okla., Oklahoma City—Details under Road and Street Construction.

Okla., Ryan—Nocona Bridge Co., capital \$100,000, incorporated by J. B. Phillips, Norman, Okla.; Harry F. Mitchell, Fort Worth, Tex. and others.

Okla., Sayre—Details under Road and Street Construction.

Okla., Tipton—Tipton Bridge Co., capital \$10,000, incorporated by W. T. Webb, R. S. Carlile and Lee Chisum, all Frederick, Okla.

Okla., Wewoka—Seminole County will receive bids soon for concrete bridge across Wewoka Creek in North Wewoka. Address County Commrs.

S. C., Sumter—Details under Road and Street Construction.

Tenn., Paris—Henry County plans building steel bridge on Palestine Rd.; to replace canal bridge. Address County Commrs.

Tex., Angleton—Details under Construction News—Road and Street Construction.

Tex., McKinney—Details under Road and Street Construction.

Tex., New Boston—Bowie County let contract to Smith Bros., Inc., American Exchange Bank Bldg., Dallas, Tex., for 2 bridges as follows: 9.3 mi. west of Texarkana on Texarkana-New Boston road, and 10 mi. from Texarkana on Redwater road.

Tex., Richmond—Fort Bend County will receive bids until Dec. 14 to construct State Highway bridge over Brazos River at Morton or Liberty Sts.; steel superstructure; concrete piers; concrete pile trestle; concrete paved approach and concrete slab on trusses; timber dyke; plans, etc., from C. H. Kendall, County Engr., Sugarland or Richmond, and State Highway Dept., Austin.

Virginia—State Highway Comm., Richmond, received low bid from R. W. Curtis & Co., Lynchburg, at \$56,994.50 for 326-ft. concrete bridge over Jackson's River near Clifton Forge, Alleghany County.

Va., Bristol—Southern Ry. Co., R. Hayes, Structural Engr., Washington, D. C., reported to build reinforced steel and concrete bridge over Oak St.

W. Va., Mannington—Fred W. Bartlett interested in building bridge across Pyles Fork Creek, between Market and Buffalo Sts.; J. M. Barrack, Mayor.

W. Va., Parkersburg—B. & O. R. R. Co., H. A. Lane, Ch. Engr., Baltimore, Md., let contract to Vang Construction Co., Cumberland, Md., to build concrete and masonry substructure for railroad bridge across Little Kanawha River, at foot of Ann St.

Clayworking Plants

Md., Aberdeen—Puritan Brick Co., capital \$225,000, incorporated by Geo. Hays Mitchell, Franklin Alfred White and others.

Tenn., Oakdale—Cardiff Brick & Tile Manufacturing Co., lately noted incorporated with \$20,000 capital, organized with J. C. Alley, Pres.; H. O. Ramey, Sec.; A. E. Venable, Mgr., Rockwood, Tenn., R. F. D. 1.

Va., Marion—W. H. Allen of Elizabethton, Tenn., has building site and has leased shale deposits and will erect brick plant; cost \$50,000.

Va., Roanoke—Clermont Land Corp., J. Tracy Walker, Treas., Liberty Trust Bldg., contemplates establishing brick and tile plant, invite prices on machinery. (See Machinery Wanted—Brick and Tile Making Machinery.)

Coal Mines and Coke Ovens

Kentucky—Southeast Coal Co., general office, 1732 Commercial Trust Bldg., Philadelphia, Pa., increased capital from \$600,000 to \$800,000; contemplates plant improvements.

Ky., Ashland—North East Coal Co. increased capital from \$500,000 to \$800,000.

Ky., Ashland—South East Coal Co. increased capital from \$400,000 to \$800,000.

Ky., Barbourville—Pursiful Coal Co., capital \$40,000, incorporated by W. H. Pursiful, S. H. Jones and others.

Ky., Louisville—Looney Creek Coal Co., increased capital from \$15,000 to \$500,000.

Mo., St. Louis—Consumers Fuel Co., incorporated by R. Boyle, N. A. Qualye and others.

Mo., St. Louis—Polar Bear Coal Co., incorporated by H. L. Robinson, D. E. Robinson and others.

Okla., Muskogee—Kanina Coal Co., capital \$10,000, incorporated by R. E. Leech, E. R. Jones and others.

W. Va., Charleston—Turner Fuel Co., incorporated by S. G. Smith, C. C. Gressing and others.

W. Va., Clarksburg—Holly Elk Coal Co., organized with A. C. McIntyre, Pres.; Geo. W. Lynch, Treas. and Walter M. Elliott, Sec.; have begun installation of mining plant to develop 1500 acres coal land in the Eagle and Sewell seams on Elk River, in Webster County.

W. Va.—Eventton—Shamer Coal Co., incorporated by E. Steen, H. W. Bowers and others.

W. Va., Fairmont—Laurel Run Coal Co., capital \$20,000, incorporated by Thomas H. Laulls of Shinnston, W. Va.; Charles E. Potter and E. C. Frame both of Fairmont.

Concrete and Cement Plants

Okla., Dewey—Dewey Portland Cement Co., F. E. Taylor, Pres., 301 Mutual Bldg., Kansas City, Mo., let contract to McDonald Engineering Co., Chicago, Ill., to build 10 concrete cement storage tanks, steel, reinforcing concrete also 1 kiln 9½x8x100 ft. long and 1 dryer 6x60 ft. long; daily output 4000 bbls. Portland cement; has purchased one coal pulverizer, capacity 6 tons per hr.

Tex., San Antonio—San Antonio Portland Cement Co., let contract to J. DePuy, Bedell Bldg., at \$23,290, to construct three reinforced concrete stacks, 213 ft. high; work involves 330 cu. yds. excavation, 700 cu. yds. reinforced concrete and 50,000 fire brick; will also open bids Jan. 1 to construct ten concrete slurry tanks, 20 ft. diam.x50 ft., including three building to stacks, estimated cost \$100,000; work involves 3000 cu. yds. earth excavation, 700 cu. yds. earth fill, 3500 cu. yds. reinforced concrete, 350 tons of reinforcing, 50,000 fire brick; W. E. Simpson, Engr., National Bank of Commerce Bldg. (Lately noted.)

Cotton Compresses and Gins

Tex., Greenville—Greenville Gin Co., J. A. McSpadden, local Mgr., is having plans prepared for rebuilding burned plant; brick with tile roof; install modern machinery; building

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

to have fireproof cotton seed storage facilities.

Tex., Nordheim—Nordheim Farmers' Co-operative Warehouse & Gin Co., increased capital from \$12,000 to \$15,000.

Drainage and Irrigation

Ala., Guntersville—Marshall County Comrs., contemplate building drainage canal in Brown's Valley; reclaiming about 6000 acres of land; estimated cost \$75,000; J. N. Moore, State Commr. of Agriculture.

Fla., Lakeland—Buchanan & Sons has contract for building system in the Lake Parker Drainage Dist., canal will extend from Lake Parker to Lake Bonny, crossing Lakeland-Auburndale road.

Electric Light and Power Plants

Ala., Birmingham—Details under Land Developments.

Ala., Cherokee—Alabama Interstate Power Co., subsidiary of Alabama Power Co., Birmingham, Ala., petitioned Alabama Public Service Comsn. for permission to construct 6 dams, instead of 4 dams for utilization of water power facilities available for Cherokee Bluffs hydro-electric development; company has also asked permission to construct additional generating unit and other facilities at company's Warrior Reserve steam plant located in Walker County. (Previously noted.)

Ala., Fort Payne—Fort Payne Power Co., petitioned Public Service Comsn. for permission to construct dam and electric generating plant at DeSoto Falls on Little River.

Ala., Heflin—John W. Kitchens of J. W. Kitchens & Bro., has taken over R. M. Dobson's electric light plant; will improve.

Fla., Kissimmee—City Comsn. let contract to Wm. Toomer, representing Fulton Iron Works of St. Louis, Mo., for 2 Fulton-Diesel internal combustion engines and generators complete.

Fla., Miami—Details under Land Developments.

Fla., St. Petersburg—Details under Land Developments.

Fla., West Palm Beach—Details under Land Developments.

Ga., Cuthbert—Details under Road and Street Construction.

Ky., Louisville—G. W. Hamilton of Middle West Utilities Co., 72 W. Adams St., Chicago, Ill., advises the Manufacturers Record that all contracts have been awarded for hydro-electric project of Kentucky Hydro-Electric Co. on Dix River near High Bridge; contracts are as follows: The L. E. Myers Co., Monadnock Block, Chicago, general contractors; Cramp Ship and Engine Building Co., Phila., Pa., for

water wheels; Allis-Chalmers Manufacturing Co., Milwaukee, Wis., for generators; Railway & Industrial Engineering Co., Pittsburgh, Pa., for outdoor substation; Pittsburgh Transformer Co., transformers; Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., for switchboard and switching equipment; L. B. Herrinton, Marion E. Taylor Bldg., Louisville, is vice-president in charge of Dix River development and L. F. Harza, Monadnock Bldg., Chicago, Ill., is engineer. (Lately noted to have increased capital from \$5,000,000 to \$10,000,000.)

Md., Baltimore—Consolidated Gas, Electric Light & Power Co., Lexington Bldg., will erect addition to sub-station at 112-116 Hopkins Place, 69x40 ft., 1 story, brick, concrete foundation, prepared roofing; cost \$61,500.

Md., Oakland—Pennsylvania Public Service Co., W. M. Haig, Pres. and Charles B. Hawley, Consult. Engr., reported to begin construction about July, 1924, on dam across Deep Creek, in Garrett County, near Oakland and building large power house on Youghisgheny River; dam will be 1200 ft. across Deep Creek and 70 ft. high; tunnel across Garrett County for distance of mile is planned to divert water into Youghisgheny River, giving fall of 435 ft. and generating about 30,000 h. p.

Maryland—Pennsylvania Water & Power Co., Lexington Bldg., Baltimore, Md., is making extension including new equipment and structures to McCall Ferry plant; installing two 20,000 k. w. turbines and increasing output from present 110,000 h. p. to 150,000; D. M. Zimmermann, Engrs., Phila., Pa.; Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., and General Electric Co., Schenectady, N. Y., electrical equipment; I. P. Morris, Div. of Cramp Ship & Engine Building Co., Phila., Pa., turbines; substructures in and forms for superstructure in place; program to be completed by April, 1924.

Mo., Mexico—Missouri Light & Power Co. (lately noted organized), has been authorized by State Public Service Comsn. to acquire all the Missouri properties of a number of utility companies operating in Missouri; included in the companies are the following: Missouri Utilities Co., Mexico, Mo.; North Missouri Light & Power Co., Ralls County; Jefferson City Bridge and Transit Co. and Jefferson City Light, Heat & Power Co., Jefferson City, Mo.; Boonville Light, Heat & Power Co., Boonville Citizens' Electric Co.; Huntsville Light & Power Co., Huntsville; Adair County Light, Power & Ice Co., Adair County; Missouri Heat, Light & Power Co., Randolph County; LaPlatte Light, Heat & Ice Co., LaPlata; Moberly Light & Power Co., Moberly; also authorized to acquire property of Cahokia Gas & Oil Co., East St. Louis, Ill.; Con-

sumers Light & Power Co., Oklahoma; Wilson Ice Co., Wilson, Okla.; Washington Gas & Electric Co., Ohio; the following towns and cities will be supplied with electric power: Jefferson City, Mexico, Centralia, Auxvasse, Boonville, Laddonia, Martinsburg, Clark, Hallsville, Benton City, Montgomery, Thompson Center, Frankfort, New London, Perry, Higbee, Huntsville, Kirksville, and LaPlata; will sell artificial gas in Mexico, Jefferson City, Boonville and Moberly and operate street railway system in Jefferson City; order authorizes company to issue and sell \$3,000,000 of first mortgage 7 per cent gold bonds, maturing Oct. 1, 1943; \$409,900 of preferred stock and 7 per cent income debentures amounting to \$1,250,000, maturing Oct. 1, 1948.

Mo., St. Louis—City and King-Del Improvements Assn. interested in installing white way system on Delmar Blvd.

N. C., Raleigh—North Carolina State College of Agricultural & Engineering, will erect power plant and enlarge textile building; new steam plant will have approximately 1000 boiler h. p., which will supply steam for heating college buildings, and operating 250 k. v. a. turbo generator; power plant will also have a testing laboratory for engineering students; textile building will be enlarged and new machinery installed; J. E. Sirrine & Co., Engrs., Greenville, S. C.

Okla., Lawton—Southwestern Light & Power Co., main office Oklahoma City, is expending \$700,000 in rebuilding plant and constructing a 66,000-volt power line between Lawton and Quanah, Tex., contract for transmission line has just been awarded to G. A. Welland of Quanah; plant improvements consist of 2 Heine boilers of 1500 h. p. each; 1 3300 k. v. a. steam turbine; an entirely new switchboard; a Wheeler cooling tower, with capacity of 16,000 gal. of water per minute; 2 195-ft. smoke stacks and supplemental devices; high tension line will serve Cache, Indianhomah, Snyder, Mountain Park rock quarries; West Cache Creek gravel pits; Manitou, Tipton, Eldorado, Quanah, Chillicothe and other localities.

S. C., Aiken—City let contract to Central Electric Co., of Columbia, S. C., at \$10,000. (Lately noted.)

Tenn., Chattanooga—Tennessee Electric Power Co., B. C. Cobb, Chrm. of Executive Comm., will expend \$40,000,000 in the next 5 years in improvements and extensions; included in the plans is the erection of a third hydro-electric power plant in the Ocoee district, addition of second steam power unit; extension and purchase of several smaller plants and building of at least 3 new dams; unit at Ocoee will be built above the second dam and will be completed within 2 years

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MANUFACTURERS RECORD

BALTIMORE, MD

after work has started and will cost approximately \$4,000,000 and have capacity of 22,500 h. p.; beside the erection of 2 new units, the company is planning to raise dam at Rock Island, Tenn., increasing power of that plant about 20,000 h. p.; cost about \$2,000,000; about \$50,000 will be expended for installation of a synchronous condenser at Ridgedale plant; completion of line to connect with Georgia Power Co., preliminary work now under way.

Tenn., Memphis—Details under Land Developments.

Tenn., Union City—Details under Sewer Construction.

Tex., Dallas—Theatre Electric Light Co., capital \$40,000, organized with E. B. Thomas, Pres.; L. G. Bissinger, Sec.-Treas.; has leased building at 208 N. Akard St., and will install electric light plant.

Tex., Lubbock—Details under Road and Street Construction.

Tex., Wichita Falls—P. A. Rogers of Wichita Falls Electric Co., will establish transmission line between Wichita Falls and Seymour.

W. Va., Charleston—American Super Power Corp., chartered by Samuel B. Howard, Arthur W. Britton and others.

Flour, Feed and Meal Mills

Ala., Mobile—Curtis Feed Co., incorporated by Jake Curtis, C. L. Waller and others.

N. C., Statesville—Sterling Mills, Inc., B. H. Adams, Pres., is planning to rebuild next spring elevators recently collapsed; probably total capacity of 100,000 bu.

S. C., Greenwood—Sterling Flour & Grain Co., lately noted incorporated with \$20,000 capital, D. A. Woodward, Sec., has building and will install corn meal chicken feed mixer. (See Machinery Wanted—Mixer; Poultry Feed.)

Tex., Austin—Stoermer Brothers, will erect machine shop on East 5th St.

Va., Norfolk—Brenner Flour Corp., capital \$10,000, incorporated with Herman Brenner, Pres.; Joe Brenner, Sec.

Foundry and Machine Plants

Ark., Fort Smith—Hammer Machine Works, South 6th St., will erect 55x150-ft. brick and steel machine shop; cost between \$12,000 to \$15,000; will install 10-ton traveling crane and hoist and 200-ton hydraulic wheel press. (See Machinery Wanted—Crane and Hoist; Press; Wheel.)

Ky., Louisville—Highway Iron Products Co., C. V. Joseph, Pres., Ligonier, Ind., reported to erect \$106,000 factory building at 17th and Magnolia Ave., first unit of plant will be 80x250 ft. of brick and steel construction, two other units will be built later; has acquired 6-acre site; will manufacture bridge iron and drainage material for highway construction.

Gas and Oil Enterprises

Ala., Birmingham—Details under Land Developments.

Ala., Scottsboro—Jackson County Oil Co., incorporated by R. M. Starkey, Mrs. B. E. Grant and others.

Fla., St. Petersburg—Details under Land Developments.

Ky., Louisa—Mazie Oil & Gas Co., capital \$25,000, incorporated by James Skaggs, James Woods and others.

La., Shreveport—Humble Oil & Refining Co., main office Houston, Tex., reported to have acquired mineral rights to 2120 acres in Webster Parish.

Md., Baltimore—Details under Land Developments.

Mo., Kansas City—American Gasoline Corporation, capital \$100,000, incorporated by F. H. Burde, L. A. Smith and others.

Okla., Cement—Brogan Oil Co., capital \$50,000, incorporated by J. E. Brogan, Cement; W. H. Starkweather of Anadarko, Okla. and others.

Okla., Okmulgee—J. A. Price, E. W. Cowden and others interested in establishing gas plant.

Okla., Okmulgee—Okmulgee Petroleum Corp., chartered by C. E. Reynolds, C. H. Smith and others.

Okla., Tulsa—Sinclair Crude Oil Purchasing Co., increased capital from \$50,000,000 to \$65,000,000.

Tex., Fort Worth—Mauldin Drilling Co., increased capital from \$1000 to \$50,000.

Tex., Gaddo—Interstate Consolidated Oil Co., capital \$10,000, incorporated by F. L. Miner, F. E. Wisecup and others.

Tex., Houston—Copeland Oil Co., capital \$10,000, incorporated by J. R. Copeland, A. A. Allison and others.

Tex., Marlin—National Petroleum Co., Dallas, Tex., reported to construct pipe line from Taylor No. 1 producer to San Antonio & Aransas Pass Ry.

Tex., Mildred—Humble Oil & Refining Co., Houston, Tex., will rebuild loading racks, burned at loss of \$100,000.

Tex., Paris—Paris Refining Co., capital \$75,000, incorporated by H. D. Brown, Lon Gilmore and others.

Tex., Wichita Falls—Nine Hundred Oil Co., incorporated by H. J. Newman, W. B. Calhoun, both of Wichita Falls; S. T. Smith of Burkburnett, Tex.

W. Va., Charleston—Stray Oil & Gas Co., incorporated by W. E. Weidler, R. E. McCabe and others.

W. Va., Welch—Gem Oil & Gas Co., capital \$25,000, incorporated by John T. Butler, John Hanlon and others.

Ice and Cold-Storage Plants

Ala., Greenville—Greenville Ice Co., Porter Martin, Gen. Mgr., has acquired plant of the Electric Manufacturing Corp. together with the grist and rice mills, will operate; J. E. Peterson in charge of mill.

Fla., Fort Pierce—City Comsn. invite bids for the installation of 20-ton ice plant, will operate in connection with municipal light and power plant; C. J. Ryan, City Mgr.

Ky., Harlan—Wallins Ice Co., capital \$25,000, incorporated by N. H. Thompson, L. H. Wilder and others.

Ky., Whitesburg—Neon Ice and Ice Cream Co., capital \$25,000, incorporated by W. E. Wright, B. F. Troliver and others.

Mo., Edina—North Missouri Power Co. is planning improvements to ice plant; cost \$20,000.

Mo., St. Louis—Merchants Ice & Coal Co., will erect 2-story ice manufacturing plant at 4330 Finney St., estimated cost \$10,000; A. B. Groves, Archt.

Mo., Trenton—Producers Cold Storage Co., main office Chillicothe, Mo., has under construction \$30,000 cold storage plant, 2-story, install machinery; one section equipped for milk feeding poultry.

N. C., Elizabeth City—M. G. Wright will erect 3-ton capacity ice plant on Weeksville road.

Okla., Ponca City—W. D. Beard will erect \$70,000 addition to ice plant.

Tenn., Tracy City—Mr. Kenoble, of Mobile, Ala., contemplates establishing ice plant.

Tex., Houston—Texas Ice & Cold Storage Manufacturing Co., capital \$50,000, incorporated by H. Rodrigo, Sr., H. Rodrigo, Jr. and F. L. Martin.

Tex., San Antonio—City Ice Co., capital \$132,000, incorporated by C. Nicholas, B. G. Brower and others.

Tex., San Antonio—City Mission Ice Co., changed name from City Ice & Fuel Co.

Iron and Steel Plants

La., New Orleans—Lukens Steel Co., Robert W. Wolcott, local Mgr., reported as having plans made for a \$100,000 water terminal to be built as soon as the barge service on the Ohio and Mississippi Rivers has been permanently established, although the distribution plant of the company on the Navigation Canal will not be equipped until February, 1924; is expending approximately \$350,000 on the distribution station, plant covers more than 2 acres and is equipped with overhead cranes to handle steel products. (Previously noted.)

Land Development

Ala., Anniston—Anniston Country Club will acquire additional land and develop for golf course.

Ala., Birmingham—Sudduth Realty Co., R. L. Sudduth, Pres., will develop sub-division; install water, gas, lights, lay streets, etc., cost \$40,000.

Ala., Cedar Bluff—D. N. Williamson Estate, capital \$18,000, incorporated by D. N. and David C. Williamson and others.

Ala., Huntsville—Rosebank Nursery Co., incorporated by Ethel S. Newson, W. A. Morring and others.

Ala., Huntsville—Newson Real Estate Co., incorporated by Amos W. Newson, Wm. A. Morring and others.

Fla., Daytona—Jardin D'Armenonville, Inc., capital \$100,000, incorporated with S. H. Goove, Pres.; R. Marshall, Sec.

Fla., Daytona—South Peninsula Development Co., capital \$50,000, incorporated with R. L. Selden, Pres.; M. Katz, Sec.

Fla., Miami—Glickman Realty Co., capital \$25,000, incorporated with Harry E. Glickman, T. Glickman, Sec.

Fla., Miami—Henry Levy of Cincinnati has acquired through the Hammond Realty Co., Miami, 111 acres of land at Miami Beach and will develop for subdivision; will install water, sewers, electric lights, roads and streets, etc.; have let contract to C. G. Hannock and B. L. Berryman for clearing tract of undergrowth; will construct bulkhead along waterfront and lowland near the bay will be filled; artificial lake will be dredged so that the subdivision will have bay, ocean and lake frontage; W. E. Brown, Engr., is surveying and platting the land.

Fla., Pensacola—Bert A. Merrill acquired 40 acres of land and will develop in citrus fruits.

Fla., Pensacola—Frank S. Goll has acquired 160 acres of land at Beulah and will develop in Satsumas.

Fa., St. Petersburg—Dr. J. R. Colyer will develop subdivision; will install sewers, water, electric lights, gas, roads and streets and sidewalks.

Fla., Titusville—Playa Linda Development Co., organized with Charles W. Ewing, Pres.; Phil J. Foran, Sec., both of Miami, Fla.; has acquired 2100 acres with 5 miles of ocean frontage and will develop for subdivision; Bliss Engineering Co., Engrs.

Fla., West Palm Beach—Southern States Land & Timber Co., capital \$150,000, incorporated by W. H. DaCamara, Geo. F. Ben-

sel, Harvey Noble and others; has acquired 6000 acres of land fronting on cross state highway and Palm Beach canal and will develop for citrus growing and establish new town to be called Laxahatchee; will plant 100 acres in citrus and avacadoes; will construct roads, install water, electric lights, sewers, etc.

Md., Annapolis—Dr. Jere Williams Lord, 1011 N. Charles St., Baltimore, acquired 60-acre tract on Severn River; will develop for subdivision.

Md., Baltimore—Edward H. Apsley, Southern Ave. and Harford Rd., has acquired 22 acres on Frederick Rd. and will begin development for subdivision in the spring; will lay streets and concrete sidewalks; water; gas, etc.

Md., Baltimore—Walbrook Construction Corp. of Baltimore City, Suite 19, 2 E. Lexington St., capital \$10,000, incorporated by Edgar Bankert, Geo. W. Robinson and others.

Md., Baltimore—Wye Heights Farm, Inc., 101 E. Fayette St., incorporated by Douglas H. Rose, 2nd., Geo. S. Newcomer and others.

Md., Hagerstown—Groh Realty Co., 9 Sherley Bldg., capital \$100,000, incorporated by Garland E. Groh, C. Lester Emmer, and others.

Miss., Bovina—Investment & Securities Co., capital \$20,000, incorporated by E. E. Davis, Sol Felder and Joseph Short all of Vicksburg, Miss.

Mo., Kansas City—Martha Realty Co., capital \$150,000, incorporated by Martha A. Guettel, Edw. H. Guettel and others.

Mo., St. Louis—Blair Realty & Investment Co., capital \$10,000, incorporated by Geo. A. Davies, Holland Bldg., E. Smith and others.

Mo., St. Louis—World Advertising System, Inc., capital \$10,000, incorporated by A. W. Siegloff, 4758 Northland Ave., J. A. Knebel, 5748 Vernon Ave. and others.

Mo., St. Louis—Lujafil Realty & Investment Co., incorporated by T. L. Nagel, 4556 Adelaide Ave., Thos. F. McDonald, 4489 Washington Blvd. and others.

N. C., Charlotte—Adams Realty Co., capital \$100,000, incorporated by Geo. N. Adams, E. O. Anderson and E. E. Jones.

N. C., Farmville—Farmville Land Co., capital \$40,000, incorporated by H. W. Turnage, McD. Horton and others.

N. C., Wilson—Wilson Commercial Realty Co., capital \$100,000, incorporated by J. D. Reid, F. S. Hargrave and others.

N. C., Winston-Salem—Salem Cemetery Assn., John W. Fries, Pres., acquired 70 acres of land on Salisbury Rd. and will develop for cemetery.

Okla., Muskogee—Culberson and Tamm acquired land and holdings of the Commercial Land Co., situated in Tulsa, Muskogee and McIntosh Counties; will develop for ranch and farming.

Okla., Oklahoma City—Bliss Kelly, Sec. of City Planning Board, contemplates establishment of tourist park with all modern conveniences.

Okla., McAlester—Guarantee Land & Mortgage Co., capital \$10,000, incorporated by A. P. Harris, F. B. Drew and others.

S. C., Camden—Ingleside Farms, Inc., capital \$30,000, incorporated with Henry B. Kennedy, Pres.; Alfred D. Kennedy, Sec.

S. C., Sumter—Sumter County Fair Assn., L. D. Jennings, Pres. lately noted having increased capital from \$8000 to \$30,000, will expend approximately \$20,000 in erection of buildings, race track, etc.; construction begins in the spring; address T. F. Moffett, Sec.

Tenn., Greeneville—N. B. Tweed and associates acquired 5 acres of land and will develop; will lay streets and sidewalks, etc.

Tenn., Memphis—J. L. and W. E. White will develop subdivision on Poplar Ave.; will install water, sewer, electric lights, pave streets and sidewalks, etc.; will erect apartment buildings and bungalows, owners will install saw mill to use lumber for buildings from their own mills in Louisiana.

Tenn., Memphis—Railroad Men's Subdivision is being developed under supervision of Palmer Bros., improvements consist of installation of sewer, water, light, roads and streets and pavements, erection of number of dwellings, etc.

Tex., Houston—Magnolia Fig Nurseries, incorporated by J. G. Collin, T. G. Markley and others.

W. Va., Charleston—Longview Land Co., capital \$50,000, incorporated by S. A. Moore, A. J. Beck and others.

Lumber Enterprises

Ala., Buhl—Deal Lumber Co., S. E. Deal, Pres., will rebuild burned plant, construction by owners; install double mill one side band and other side circular, also five 72x18 high pressure boilers. (See Machinery Wanted—Boilers.)

Ala., Selma—Homer D. Webb and J. W. Robinson, Jr., owners of the Webb-McCall Planing Mill, will rebuild plant, burned at loss of \$20,000.

Ala., Troy—R. D. Foley Lumber Co., capital \$20,000, incorporated by R. D. Foley, J. F. Johnston and others.

Ark., Wesson—Edgar Lumber Co., G. P. Gammill, Mgr. (lately noted to rebuild burned mill), will erect 60x140-ft. plant, construction by owner, estimated cost \$10,000; will install 20x24 slide valve engine and 35,000 ft. capacity circular saw mill. (See Machinery Wanted—Engine; Saw Mill.)

Ga., Hiawassee—R. R. Rumbarger of Clermont, Ga., has acquired timber tract in Towns County, will develop.

Md., Baltimore—Lafayette Mill & Lumber Co., Lafayette Ave. and P. B. and W. M. Railroad, will erect mill, power house and lumber dryers, one 3-story and two 1-story buildings, 95x180x45 ft., 43x40x26 ft. and 35x52x13 ft., respectively; brick construction, concrete foundations, slag and concrete roof; estimated \$75,000; Albert H. Benson, Archt., Lafayette and Pennsylvania Aves.

Miss., Cleveland—Cleveland Lumber Co., capital \$12,000, incorporated by E. J. Howell, M. B. Lewell and others.

Mo., Kansas City—National Lumber & Creosoting Co., capital \$383,274, incorporated with John T. Logan, Pres.; E. W. Mead, Sec.

Mo., Kansas City—Globe Lumber Co., capital \$80,000, incorporated by David W. Bozzell, Gus Ugland and others.

N. C., Waynesville—Sterling Manufacturing Co., capital \$50,000, incorporated by Alden Howell, V. C. Nobeck and others.

Tenn., Memphis—Details under Land Developments.

Tex., Fayetteville—Kelly Brothers Lumber Co., of Springdale, Tex., has acquired site, will erect \$20,00 brick building; construction will begin about January, 1924; will move headquarters from Springdale.

Tex., Keltys—San Augustine County Lumber Co., increased capital from \$600,000 to \$645,000.

Mining

Ky., Carter—Ashland Limestone Co., Inc., Ashland, Ky. (lately noted incorporated, capital \$200,000), organized with R. F. Hill, Jr.,

Pres.-Mgr., Orange, Va.; J. W. Hill, Sec.; has 150 acres under development, daily output 3000 tons; have opened up the quarry to a distance of about 1400 ft., with face of from 60 to 120 ft.

Mo., Joplin—B. Pitts, and associates have leased mill and 40-acre tract of lead and zinc deposits; will develop.

Mo., Poplar Bluff—H. E. Springer and I. W. Rodgers has acquired 11,000 acres iron ore lands in Iron Mountains in Wayne County, will develop.

S. C., Blair—Fairfield County Granite Co., capital \$30,000, incorporated with J. H. McLaurin, Pres.; J. F. Thompson, Sec.

Texas—Universal Gypsum Co., G. E. Williams, V.-P., 111 W. Washington St., Chicago, Ill., reported to erect \$250,000 gypsum plant near Rotan, has a 460-acre tract acquired about one year ago; company also has plant located at Fort Dodge, Iowa and Batavia, N. Y.

W. Va., Weston—S. A. Scott & Co., S. A. Scott, Pres.-Gen. Mgr., Richlands, Va., has acquired 500 acres coal land, will install modern electric coal loaders of various types.

Miscellaneous Construction

Ark., Conway—Levee—J. E. Little let contract to J. B. Stebbins to construct new levee on plantation, protecting about 500 acres known as the Point; estimated cost \$15,000.

Fla., Miami—Bulkhead—Details under Land Developments.

Fla., West Palm Beach—Seawall—L. Trette Lockwood, Town Manager, plans the erection of seawall and fill to repair about 1200 ft. of Ocean Blvd. damage by storm.

Ky., Louisville—Locks, etc.—Government has allotted \$10,500,000 to the Louisville Engineering Dist. for additional work on the Ohio River.

La., New Orleans—Docks, etc.—Port Comms., Engineering Dept., will call for bids early next month for the structural steel for the Claiborne St., 2500-ft. dock; construction work in connection with the various developments of the port continue all winter, also opened bids for the dock extension.

Md., Baltimore—Republic Products Corp., 2 East Redwood St., organized with Lee Silver, Pres.-Mgr.; Benjamin Rothkin, Sec.-Treas.; will manufacture metal products and electric wiring devices; invite prices on milling machines, punch presses, dies, jigs, fixtures, castings, steel pipe, iron wire, etc.; will also consider having work done in outside shops. (See Machinery Wanted—Metal Working and Production Machinery.)

Md., Baltimore—Natatorium—Natatorium Assn., will be incorporated by John O'Brien and associates, offices in Hearst Tower Bldg.; has leased 5 acres land from John J. Carlin and will construct natatorium at Carlin's Park, estimated cost \$500,000; David M. Ach, 1 Madison Ave., New York, is preparing plans for the buildings; Lynch Brothers of New Haven, Conn., are preparing plans for the pool proper and filtration and purification of water; plans call for concrete pool, 300x200 ft., with tile finish, ranging in depth from 6 in. to 10 ft., with 100-yd. course in deep water with ample facilities for spring boards and high diving, with capacity of 2,500,000 gals. water, treated each 14 hrs. by recirculating process; water will be treated by the Marsh System of Chlorination and further treated by the action of the Ultra Violet Rays; separate wading pool will be provided for children; plans further provide for sand beach, athletic field, etc.; the attendant building will be 4 story, fireproof, constructed of hollow tile with cream colored stucco finish, terraced garden with seating accommodation for 2000 persons; will install laundry equip-

ment, etc.; construction of pool to be completed by May 15, 1924; work under supervision of Norton, Bird & Whitman, Engrs., Munsey Bldg., Baltimore.

Miss., Biloxi—Beach Protection—Details under Road and Street Construction.

S. C., Spartanburg—Swimming Pool—City Commrs. will construct swimming pool at Cleveland Park; open bids Dec. 5; plans with City Supt. of Streets and P. J. L. Smith, City Engr. (Lately noted.)

Tex., Houston—Canal—C. S. E. Holland, Pres., Intra-Coastal Canal Assn. of Louisiana and Texas, and associates, are interested in the building of inland waterway from the Great Lakes to the Rio Grande.

Tex., Houston—Swimming Pool—Details under Miscellaneous Enterprises.

Miscellaneous Enterprises

Ala., Andalusia—Covington News Co., capital \$10,000, incorporated by Allen Crenshaw, H. D. Etheridge and others.

Ala., Montgomery—State Board of Administration let contract to Highways Advertising Co., Inc., of Birmingham, Ala., to erect the official highway markers on the State highways of Alabama also includes red danger reflectors at dangerous curves, crossings, etc.; contract is for a period of 10 years.

Fla., Miami—Bond Investment & Construction Co., capital \$10,000, incorporated with Philip F. Jones, Pres.; Jos. H. Collins, Sec.-Treas.

Fla., Tampa—Tampa Stock Farms Dairy Co., capital \$50,000, incorporated with August Van Eepoel, Pres.; August Van Eepoel, Jr., Sec.-Treas.

Ga., Social Circle—Stanton Supply Co., capital \$20,000, incorporated by C. B. Vining, P. A. Stanton and others.

Ky., Hazard—French Brother, capital \$25,000, incorporated by Wm. French, Edward West and others.

Ky., Henderson—Community Hotel Co., capital \$300,000, incorporated by Richard Henderson Soaper, Alexander Blair and others.

Ky., Louisville—W. L. Martin Broom & Mop Co., E. E. Kimble, Sec., 1010 S. Preston St., has acquired building, will remodel later and install sprinkler system; construction by owners; increased capital from \$40,000 to \$75,000. (See Machinery Wanted—Sprinkler System.)

Ky., Louisville—Richard D. Bakrow & Sons, capital \$75,000, incorporated by Richard E. and James C. Bakrow, Louisville; Julius C. Lesanski, Chattanooga, Tenn.; will manufacture toy balloons, etc.

Ky., Louisville—Browder & Hoskins Co., capital \$30,000, incorporated by Geo. T. Browder, R. H. Hoskins and others.

Ky., Louisville—Henry Fisher Packing Co., 1806 Mellwood Ave. (lately noted incorporated, capital \$25,000), organized with Henry Fischer, Pres.-Mgr., is erecting 3-story, 37x205-ft. fireproof building, construction by owners, in charge of Carl Fischer; machinery all purchased except feed pumps and water heaters; will manufacture sausage and other pork products.

La., Monroe—Southern Chemical Co., capital \$250,000, organized with Dr. D. J. Birchett, of Cardwell, Mo.; Francis E. Goodwin, Sec.-Treas., Monroe; reported to begin operation of plant for the manufacture of calcium arsenate; estimated daily output 7 tons.

La., New Orleans—Freret Drug Co., increased capital from \$25,000 to \$50,000.

La., New Orleans—Gervais F. Favort, Canal-Commercial Bldg., has received contract

at \$31,000 to remodel building at Canal and Bourbon Sts., will be occupied by the Han-nan Shoe Co.; A. D. Seymour, Archt., New York.

La., Shreveport—General Chemical Co., capital \$60,000, incorporated with J. F. Cunningham, Pres.; H. Clay Brown, Sec.-Treas.

La., Shreveport—Advertising—B. & B. System, Inc., capital \$30,000, incorporated with J. L. McFadden, Pres.; Glen McFadden, Sec.-Treas.

Md., Baltimore—Holtson Manufacturing Corp., 119 E. York St., capital \$10,000, chartered by James B. Holtson, Walter B. Harrison and others.

Md., Baltimore—Standard Sanitary Manufacturing Co., H. M. Reed, Asst. Gen. Mgr. of Factories, Pittsburgh, Pa., has let contract to B. A. Groah Construction Co., of Pittsburgh, to construct concrete foundations and concrete warehouses; to the Fort Pitt Bridge Co., Pittsburgh, for steel; this represents contracts let to date; S. Diescher & Sons, Engrs., Farmers Bank Bldg.; as lately noted, will erect \$3,000,000 plant at 5th Ave. and 17th St., Canton; to manufacture bath tubs and plumbing fixtures.

Md., Baltimore—Methodist Protestant Book Concern, 316 N. Charles St., let contract to Thomas Hicks & Sons, Inc., 106 W. Madison St. at \$95,000 to erect 5-story 30x155-ft. building at corner Charles and Hamilton Sts.; brick construction, slag roofing, metal ceilings, hardwood floors, install ventilators, mail chutes, vaults; John R. Forsythe, Archt., 12 E. Lexington St. (Lately noted.)

Md., Baltimore—Sun Laundry, Inc., 2208 Cambridge St., incorporated by Boleslaw A. Drozdowski, Thos. B. Keavney and others.

Md., Baltimore—Frank A. Burke Motor Transfer Co., 111N. Charles St., capital \$100,000, incorporated by Wm. L. Galvin, Edward Mullen and others.

Md., Baltimore—E. H. Beer & Co., Inc., 310 Chamber of Commerce Bldg., capital \$50,000, incorporated by Eugene H., Roland J. and Robt. A. Beer.

Md., Baltimore—Southern Motor Transportation Co., 428 N. Hilton St., capital \$15,000, incorporated by Milton E. Biemiller, Paul Adams and others.

Md., Baltimore—Coco Cola Bottling Co., 408 N. Calvert St., let contract to Louis B. Wilcox to erect 110x96-ft. 2-story reinforced concrete building at Plowman and Front Sts., steel rolling doors and sash, fireproof throughout; slag roofing; estimated cost \$140,000; Raymond Concrete Pile Co., Munsey Bldg., has contract for foundations and Curtis Bay Copper & Iron Works, of Curtis Bay, to furnish and erect steel work; annual capacity about 70,000,000 bottles.

Md., Baltimore—Headley Chocolate Co., 15 S. Frederick St., will erect 54x130-ft. addition to plant, mill construction, install two elevators, and sprinkler system; estimated cost \$25,000; Chas. P. Nieder, Archt., Empress Theatre Bldg., Oklahoma City, Okla. (Lately noted.)

Md., Baltimore—Rennous-Kleinle Division of the Pittsburgh Plate Glass Co., let contract to Charles L. Stockhausen Co., Gay and Water Sts., to erect 4-story and basement, L-shaped addition to plant on Frederick Ave., 140x60 ft., brick and steel, slow burning construction; estimated cost \$100,000; Wight & Lockhart, Archts. (Lately noted.)

Md., Baltimore—Bilt-Rite Co., 1218 John St., capital \$100,000, incorporated by Jos. A. Baldwin, Wm. M. Wilkelman and others.

Md., Baltimore—King McCall Co., 627 Aisquith St., capital \$30,000, incorporated by Charles A. King, John A. McCall and others.

Md., Baltimore—Trade Bindery Co., 18 E.

Lombard St., capital \$30,000, incorporated by Jos. J. Strahler, J. Emory Atkinson and others.

Md., Baltimore—Baltimore Fireworks & Specialty Co., 300 W. Baltimore St., capital \$24,000, incorporated by Arthur G. Hall, Percy E. Shores and others.

Md., Brooklyn—Baron E. DeKalb, Inc., Annapolis Blvd., R. D. No. 9, capital \$25,000, incorporated by Baron E. and Albert DeKalb and others.

Md., Elk Mills—Kay and Todd Co., increased capital by \$44,000.

Md., Mt. Savage—Mount Savage Amusement Co., capital \$20,000, incorporated by Matthew J. Mullaney, David Brailer and others.

Md., Ridgely—Community Amusement Corp., capital \$15,000, incorporated by Harvey L. Holsinger, Chas. L. Hobbs and others.

Miss., Vicksburg—Electrolock Manufacturing Co., W. Heningway, Pres., has leased new building, having about 5000 sq. ft. floor space, will convert into an assembly plant for the production of Electrolocks; has let contract for installation of japanning oven.

Mo., Carthage—F. M. Clayton, J. C. Wyatt and J. S. Cantrell will erect hatchery with capacity of 15,000 eggs.

Mo., Independence—Building Materials—Stuko Steel Missouri Co., capital \$100,000, incorporated by G. R. Kuykendall, C. N. Smith and others.

Mo., Jefferson City—The Inter-Southern Radio Corp., 208 E. High St., (lately noted incorporated, capital \$10,000) organized with Ernest L. Schneider, Pres.-Mgr.; will establish plant for the manufacture of radio outfits and parts, bids until Jan. 1, 1924 for factory equipment. (See Machinery Wanted—Radio Material and Supplies.)

Mo., Kansas City—Fidelity Chemical Co., capital \$90,000, incorporated by C. J. Boner, 116 N. Lawn St.; M. L. Sudsberry, 2818 Troost St.

Mo., Kansas City—Troost Bldg. Co., incorporated by Samuel Ettleman, Morris G. Edstein and others.

Mo., Kansas City—South Central Pharmacy, capital \$10,000, incorporated by Thos. C. Moore, Wm. F. Walpole and others.

Mo., Kansas City—Sunrise Dairy Co., incorporated, Harry B. Walker, Atty., Commerce Bldg.

Mo., St. Louis—Diamond Metal Products Co., capital \$10,000, incorporated by J. F. Zirnheld, 5201 Raymond St., G. E. Kauffmann and others; manufacture pipe, valves and fittings.

Mo., Springfield—Inland Printing Co. let contract to Dobbs Construction Co. to erect printing plant; cost \$20,000. (Lately noted.)

Mo., St. Louis—Harriott Polish Co., increased capital from \$100,000 to \$150,000.

Mo., St. Louis—Neidringhaus Metal Wares Corp., 5700 Natural Bridge let contract to Chas. Wilcox Construction Co., 5302 Queens St., to erect 100x200-ft. factory building, gravel composition roof; estimated cost \$25,000; Geo. E. Smith, Archt., 5401 Murdock St.

Mo., St. Louis—Heat and Cold, Inc., increased capital from \$10,000 to \$20,000.

Mo., St. Louis—Western Barge Line, capital \$17,000, incorporated by Thos. P. Craig, 3932 Evans Ave., Champ P. Christopher; to establish barge line on Missouri River between St. Louis and Sioux City, Iowa.

Mo., St. Louis—Marx-Albrecht-Steffen Co., capital \$20,000, incorporated by Fred P. Marx, Wm. Albrecht, E. M. Steffen; will manufacture leather goods.

Mo., St. Louis—Metal Hose & Tubing Co.,

capital \$85,000, incorporated with John M. Odem, Pres.; Mary E. Begly, Sec.

Mo., Springfield—Springfield Packing Co., has acquired 31 acres and will erect packing plant.

Mo., Thayer—E. L. Cloud of Clover will erect canning plant; construction to begin about January 1.

N. C., Asheville—J. A. Baker Packing Co., J. A. Baker, Pres., acquired plant of Asheville Packing Co. and will operate; will remodel present plant and later erect additional plant.

N. C., Elizabeth City—South Atlantic Construction Co., capital \$100,000, incorporated by W. H. Thomas, Wm. McQueen and others.

N. C., Greensboro—General Paper Co., increased capital from \$25,000 to \$50,000.

N. C., Henderson—Capitol Theatre Corp., capital \$50,000, incorporated by S. S. Stevenson, W. D. Burwell and others.

N. C., Lexington—City Drug Co., capital \$25,000, incorporated by J. H. Grear, J. T. Hedrick and others, all of Winston-Salem, N. C.

N. C., New Bern—New Bern Manufacturing Co., capital \$50,000, incorporated by A. R. Willis, H. T. Whitehurst and others.

N. C., Raleigh—Yellow Cab Co., capital \$100,000, incorporated by C. L. Haynes, Carl C. Williamson and Fred J. Farr.

N. C., Wilmington—Piedmont Pickle & Vinegar Co., capital \$100,000, incorporated by Robert Dawson, Wilmington; Leslie Dawson, Norfolk, Va. and others.

Okla., Enid—Enid Bread Co., capital \$50,000, incorporated by Chas. F. Yost, Walter B. and Robert K. Everest, all Oklahoma City, Okla.

Okla., Oklahoma City—Cartt-Baker Co., Inc., capital \$50,000, chartered by F. W. Cartt, E. M. Baker and others.

Okla., Oklahoma City—Associated Cleaners & Dyers, increased capital from \$15,000 to \$50,000.

Okla., Sand Springs—Quality Beverage Co., capital \$10,000, incorporated by J. M. Catron, L. J. Lampkin and others.

S. C., Camden—Thomas' of Camden, capital \$25,000, incorporated with W. P. Thomas, Pres.; W. T. Stewart, Sec.-Treas.

S. C., Columbia—Rutherford-Innes Construction Co., capital \$10,000, incorporated by J. W. Rutherford, D. R. Innes.

S. C., Columbia—Southern Farm & Dairy Co., increased capital to \$100,000.

S. C., Columbia—Orio Chemical Co., capital \$12,000, incorporated with C. P. Gilbert, Pres.; C. H. Durant, V.-P. and Sec.

Tenn., Memphis—Fairley Map Co., McCall Bldg., capital \$50,000, incorporated by O. M. Fairley, D. W. Morrison and others.

Tenn., Portland—Company organized by G. D. Moore, Amos Empson and Walter Duffer, has leased building for the manufacture of tobacco.

Tenn., Rockwood—C. L. Cole of Greenwood, Miss., and associates acquired Coco-Cola Bottling Works and will operate.

Tex., Dallas—Universal Polish Manufacturing Co., 911 Camp St., has established plant for the manufacture of paste shoe polish; invite prices on metal containers, automatic filling and capping machinery. (See Machinery Wanted—Filling and Capping Machinery; Containers, Metal.)

Tex., Dallas—Dallas Home Building Co., increased capital from \$15,000 to \$45,000.

Tex., Dallas—American Machine & Novelty Co., increased capital from \$20,000 to \$75,000.

Tex., El Paso—F. B. White Typewriter Co., incorporated by F. B. White, W. H. Peterson and others.

Tex., Fort Worth—Turner and Dingee, capital \$50,000, incorporated by E. H. Carlton, J. B. Laski and others.

Tex., Gause—Oak Crest Poultry & Produce Co., incorporated by O. D. Baker, O. L. Baker and others.

Tex., Greenville—Harrison Cotton and Grain Co., S. Johnson St., will rebuild fireproof plant.

Tex., Houston—Houston Amusement Park, Inc., 912 Bankers Mortgage Bldg., A. Ingersoll, Pres.; will develop amusement park, construct swimming pool, dance hall, etc.

Tex., Houston—Standard Sanitary Manufacturing Co., has plans by Alfred C. Kinn, for 4-story brick building at McKinney Ave. and Broadway; concrete and brick; cost \$172,000. (Lately noted.)

Tex., Magnolia Park—Mutual Construction Co., capital \$10,000, incorporated by F. P. Goff, S. D. Simpson and others.

Tex., Port Arthur—Cascade Laundry & Dry Cleaning Co., capital \$75,000, incorporated by W. A. Johnson, S. H. Dean and others.

Tex., Sugarland—Imperial Sugar Co., will erect \$75,000 char house; construction to begin soon.

Tex., Temple—Hicks Rubber Co., capital \$15,000, incorporated by H. R. Heggie, D. T. Hicks and others.

Va., Bassett—Bassett Mirror Co., Inc., capital \$100,000, incorporated with J. D. Bassett, Pres.; C. C. Bassett, Sec.-Treas.

Va., Chincoteague—Chincoteague Theatre Corp., capital \$20,000, chartered with Lee W. Insley, Pres., Salisbury, Md.; Daniel Jeffries, Sec., Chincoteague.

Va., Harrisonburg—Central Drug Co., capital \$15,000, incorporated with Emanuel Blosser, Pres.; W. W. Rolston, Sec.

Va., Norfolk—Engineering, etc.—Gwathmey-Sadler Co., capital \$12,000, incorporated with E. T. Gwathmey, Pres.; L. B. Crayton, Sec.

Va., Richmond—Houston Builders Co., capital \$30,000, incorporated with Jos. C. Taylor, Pres.; J. McD. Wellford, Sec.

Va., Richmond—Dreamland Park Amusement Co., incorporated with Meyer Green, Pres.; John L. Long, Sec.

Va., Roanoke—Photographic Supplies—Universal Arms Institute, Inc., capital \$25,000, chartered with B. C. Sayers, Pres.; H. S. Sayers, Sec.

Va., Roanoke—Jefferson Building So., increased capital from \$100,000 to \$175,000.

Va., Roanoke—Alouf Bros. will erect three buildings on East Campbell Ave. at cost of \$50,000 (exclusive of equipment), to be occupied by Swift & Co., Armour & Co. and Morris & Co.; each of the buildings will be erected upon the same foundation but will be under separate roofs, separated from each other by fireproof wall and will be constructed of fireproof material throughout; dimensions of each are 75x40 ft., allowing 3000 sq. ft. of space to each of the floors; 2 stories and basement; each building equipped with elevators, covered driveways for trucks; will install modern cold storage and refrigerating equipment.

W. Va., Clarksburg—Struve and Giles Co., increased capital from \$25,000 to \$50,000.

W. Va., Harrisville—Duty Air-Brake Co., capital \$20,000, incorporated by C. B. Lewis of Harrisville; D. G. Duty of Pennsboro, W. Va. and others.

W. Va., New Martinsville—Wetzel Baking Co., capital \$10,000, incorporated by D. F. Moore, F. E. Thomas and others.

W. Va., Richmond—Cherry River Amuse-

ment Co., capital \$100,000, incorporated by Wendell H. Holt, Richmond; D. Oscar O'Connell of White Sulphur, W. Va. and others.

Motor Cars, Garages, Tires, Etc.

Ala., Alabama City—Filling Station—E. J. Gilbert let contract for construction of filling station at Canterbury, brick construction; Leon Gilbert in charge.

Ala., Anniston—Garage—Dr. C. W. Dugette of Jacksonville, Fla., let contract to G. C. King to erect garage building on Noble St., estimated cost \$8000.

D. C., Washington—Filling Stations—Allan E. Walker Investment Co., 1707 L St., N. W., have acquired two sites on Connecticut Ave., one corner Ordway St., size 134x140 ft., and one corner Albemarle St., having 164x160 ft.; will erect modern filling stations and accessory shops.

D. C., Washington—Pioneer Motor Service Corp., capital \$50,000, incorporated by Edwin S. Linz, Munsey Bldg. and George McLaughlin, both of Washington; E. M. Barnes, Hastings, Mich.

La., Shreveport—Investment Co., Inc., 724 Marshall St., will erect 1-story, brick and steel filling station; cost \$10,000.

Md., Baltimore—Garages—Fred Schulte will erect two 1-story, brick garage buildings corner Fleet and 5th Sts., 140x150-ft. and 190x150-ft. respectively; estimated cost \$20,000; construction by owner.

Md., Baltimore—Garage—Mrs. M. Marden will erect 1-story 96x507-ft. brick garage building at 2507 Oak St.; J. R. Forsythe, Archt.-Builder, 16 E. Lexington St.

Md., Baltimore—Susan Smith 3501 Hickory Ave., will erect one-story brick garage building on Hickory Ave. near 41st St.; 160x120 ft.; estimated cost \$41,000; J. F. Bisson Archt.

Md., Baltimore—Garage and Accessories Dealers' Assn., 327 N. Fremont St., incorporated by Seth H. Linthicum, Harry G. Morgan and others.

Mo., Clayton—Allen-James Motor Co., capital \$20,000, incorporated by T. W. Allen, 5061 Lindell Blvd., J. Rush James, 4412 Forest Park Blvd., both St. Louis, Mo.

Mo., Kansas City—Garage—James E. Morley of the James E. Morley Construction Co., received contract to erect 2-story, steel and concrete garage building on Broadway, extending from 18th to 19th Sts., estimated cost \$150,000; to be occupied by the post-office department, housing their 95 trucks, total capacity 100 trucks.

Mo., Kansas City—Simons Wiles Motor Co., capital \$200,000, incorporated by LeRoy Simons, Richard E. Wiles and others.

Mo., Kansas City—Hyde Park Chevrolet Co., incorporated with capital \$20,000; Frank M. Ludwick, Atty., 444 Lathrop Bldg.

Mo., St. Louis—E. D. Hunkin, 3628 Washington St., let contract to Boaz-Kiel Construction Co., 310 Chouteau Trust Bldg., to erect 1-story sales and service building, estimated cost \$12,000; J. T. Craven, Archt.

Mo., St. Louis—Auto Tipper Co., incorporated by Victor H. Freffoz, P. A. Doyle, 7415 Minnesota St. and others.

Mo., St. Louis—Derco Baked Enameling Co., capital \$10,000, incorporated by Hollis D. Kerr, O. L. Dallas and others; establish automobile painting and enameling shop.

Mo., St. Louis—Joseph P. Murphy Sons, capital \$25,000, incorporated by David D. Murphy, St. Louis; John J. Leykan, Webster Groves, Mo. and others.

N. C., Asheville—Asheville Harness Co., increased capital from \$20,000 to \$100,000.

N. C., Gastonia—Demmit Tire Sales Co.,

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

capital \$50,000, incorporated by Dr. J. A. Demmitte, A. G. Robinson and others.

N. C., Greensboro—Auto Equipment & Sales Co., incorporated by H. S. Wotton, H. G. Hill and others.

N. C., Marshville—Marshville Motor Co., capital \$25,000, incorporated by L. L. Parker, J. S. Harrell and others.

N. C., Wilmington—Filling Station—Southern Gas & Oil Co., Clinton, N. C., has leased site corner 3rd and Grace Sts., will erect filling station.

N. C., Winston-Salem—George H. Willard Motor Co., re-organized with Geo. H. Willard Pres.; B. C. Willard, Sec.-Treas.; increased capital from \$50,000 to \$100,000.

Okl., Muskogee—Consolidated Sales Co., capital \$10,000, incorporated by L. W. Randolph, H. E. Newton and others.

Okl., Oklahoma City—Every-Ready Battery Solution and Sales Co., capital \$10,000, incorporated by W. R. Sears, Walter Lobdell and Sam Ginn.

Okl., Sand Springs—Broadway Motor Supply Co., capital \$10,000, incorporated by Charles B. Rawson, C. H. Rawson and others.

Tenn., Chattanooga—Auto Tire Co., 520 Market St., has acquired established plant at 11th and Market Sts., will operate.

Tenn., Columbia—Crissey Tire & Rubber Co., has leased Grant property on the Pulaski turnpike, will erect plant to manufacture automobile tires, tubes, toys, etc.

Tex., Big Springs—Stokes Motor Co., let contract to J. M. Morgan, Big Springs, to erect 50x140 ft. brick automobile building.

Tex., Dallas—Dallas Service Station, capital \$20,000, incorporated by W. J. Lee, O. H. True and others.

Tex., El Paso—Seiberling Tire Sales Co., capital \$10,000, incorporated by T. Pauly, W. E. Arnold and others.

Tex., Fort Worth—Automobile Accessories—Fred H. Jones will erect 3-story, brick building corner 1st and Commerce Sts., fireproof, approximate cost \$100,000; has acquired 100x100-ft. site and building will have total floor space of 30,000 sq. ft.

Tex., Houston—Fairview Service Station, capital \$20,000, incorporated by Caleb M. Huber, Herbert H. Richter and others.

Tex., Houston—White Automobile Co., P. E. Seaman, Mgr. let contract to John Statler to erect 1-story, hollow tile and brick building at Leland Ave. and LaBranch St., cost \$30,000.

Tex., San Antonio—Roth Bros. Auto Supply-Machine Co., 317 N. Flores St., let contract to Ed. W. Oeflinger, College St., to erect 100x120-ft., 2-story fireproof building; has machinery for rebuilding motors, and garage equipment; Herbert S. Green, Archt. Alamo Bank Bldg. (Lately noted.)

Tex., Temple—Thomas Perry Motor Co., incorporated by F. D. Thomas, W. E. Perry and others.

Tex., Waco—Filling Station—R. H. Manning will probably erect filling station and install underground tanks on Washington St.

Va., Danville—Old Dominion Motor Co., Inc., capital \$25,000, incorporated with P. D. White, Pres.; W. O. Gee, Sec.-Treas.

Va., Norfolk—Knight Motor Co., capital \$10,000 incorporated with G. F. Knight, Pres.; W. H. Sanford, Sec.

Va., Pennington Gap—Lee Motor Co., capital \$10,000, incorporated with W. H. Polly, Pres.; Earl C. Laningham, Sec.

W. Va., Huntington—Miller-Roberts Motor Co., capital \$15,000, incorporated by J. E. Miller, Jr., J. E. Miller, Sr., W. N. Neal and others.

Road and Street Construction

Ala., Birmingham—City let contracts for street paving as follows: Walker Ave. from 71st to 74th Sts., to Holt & Rast, at \$12,081.35; to Hening & Bragan, 68th St from 1st to 3rd Aves.; 6th Ave., South and 80th Sts., at \$5867.50, and 3rd St. and St. Charles Ave., at \$5850; to J. L. Mullarky, at \$11,354, 7th St. West, and 8th Court; to Long & McPoland, Pike Road and 25th St., at \$4295.60; 7th Ave., South and 59th St., at \$6443.75. Address The Mayor.

Ala., Birmingham—Details under Land Developments.

Ala., Florida—City will soon receive bids to pave 100-ft. wide streets, with 30-ft. driveway on each side and parking space in center. Address The Mayor.

Ala., Greensboro—Bureau of Public Roads, Montgomery, Ala., plans 20 mi. road from Greensboro, Hale County to Uniontown, Perry.

Ala., Marion—State Highway Comm., Montgomery, Ala., will receive bids until Dec. 28 for 8.777 mi. road from Brown's Station to Uniontown, part of State Route No. 26; also to build bridges; Perry County, Project No. 142; plans, etc., from State Highway Dept., W. S. Keller, Engr., Montgomery, or Div. Engr., Selma.

Ala., Montgomery—City will receive bids until Dec. 26 to pave S. McDonough St. between South and Jeff Davis Ave., and Washington and South; W. A. Cone, City Engr. (Lately noted.)

Ala., Pell City—St. Clair County plans grading and surfacing 13 mi. road from Pell City to Odenville. Address County Commrs.

Ala., Tuscaloosa—City receives bids until Nov. 27 to pave with portland cement concrete 8700 cu. yds. pavement; 715 lin. ft. 6-in. integral curb; 2200 cu. yds. grading; plans, etc., from W. H. Nicol, City Engr.

Ark., Arkadelphia—State Highway Dept., Little Rock, Ark., plans improving Arkadelphia-Hot Springs road; also 5 mi. Bankhead Highway from Arkadelphia to Caddo River bridge.

Ark., Mena—Dist. Engr., Bureau of Public Roads, U. S. Dept. of Agriculture, Little Rock, Ark., let contract to J. J. Harrison, Oklahoma City, Okla., at \$75,000, to build 11.2 mi. Foran Gap, Forest Highway, Arkansas National Forest, Polk and Scott Counties.

Ark., Pine Bluff—City plans paving 7th Ave. from Ohio to Indiana; 8th from Ohio to Kentucky; Pennsylvania, Florida and Kentucky Sts., from 6th to 8th Aves.; all in Dist. No. 75; 7th from Linden to Oak; 8th from Linden to Beach; 9th from Linden to Poplar, and Oak from 7th to 8th; all in Dist. No. 76. Address The Mayor.

Fla., Brooksville—Hernando County Commrs., plan building 70 mi. rock asphalt roads; contemplate voting on \$450,000 bonds.

Fla., Clearwater—Pinellas County received low bid from Smith Brothers, Dallas, Tex., at \$2,400,000 for building 8 roads in County; brick on 4-in. base, on roads Nos. 1, 5 and 8, and sheet asphalt on 6-in. base for other roads.

Fla., Eustis—City let contract to T. S. Lord, to pave streets in new residence sections of Sentinel Hill and Hill Crest. Address The Mayor.

Fla., Hialeah—City plans extending Seminole Ave. from 1st St. to Okeechobee Rd., and rebuilding and oiling from Okeechobee to 9th St.; let contract to Champion Bridge Co., Atlanta, Ga., to build steel bridge across Miami canal, Hialeah.

Fla., Inverness—City let contract to Barnes & Smith, Lecanto, at \$8000 to pave 2 blocks on Pine St.; asphalt penetration process.

Fla., Lakeland—City will receive bids until Dec. 20 to pave and widen 20 mi. streets; approximate cost \$1,000,000; Chas. Carroll Brown, City Engr.; Anton Schneider, City Mgr. Lately noted. (See Machinery Wanted—Paving Materials.)

Fa., Miami—Details under Land Developments.

Fla., Miami—City will receive bids until Dec. 1 for bituminous paving, Paving Cont. No. 49, covering Highway Improvements Nos. H-206 to H-212; 15,486 grading and paving; 21,844 lin. ft. curb and gutters; 49 sewer inlets; 1462 lin. ft. 8-in. T. C. pipe; also lay concrete sidewalks, Sidewalk Cont. No. 25, covering Sidewalk Improvements Nos. 45 to 49, inclusive; 11,598 sq. yds. concrete; plans, etc., from F. H. Wharton, City Mgr.

Fla., Sarasota—Sarasota County, Board of Commrs., plans building 7 hard surfaced roads as follows: Miakka road, from Sarasota to point ½ mi. north of Miakka; branch road from this point to Miakka, and extending to Miakka Run; also branch from main road to Verna; Lockwood Ridge road, 4 mi. on Fruitville road from point 1 mi. east of Sarasota to County line; Interior road from hard surfaced road at Bee Ridge, through town of Bee Ridge to school house, then to County line; Venice-Englewood road, from Venice south, cost \$75,000; Siesta Key road, from Siesta Key Bridge to intersection of old Beach road and Archibald bath house road, then to south end of key; also from Archibald bath house to intersection of above road at point near old bath house; all contingent upon bond issue to be voted; received low bid from Woodburn Matheny for Siesta fill at 26 3/5 cts. per cu. yd.

Fla., Sarasota—State Highway Dept., Tallahassee, plans building Tamiami Trail in Sarasota County, and election will be held on \$15,000 bonds.

Fla., St. Petersburg—Details under Land Developments.

Fla., Wauchula—Hardee County plans building 15 roads, totaling 89 mi. including road through Wauchula from Ona toward Highlands County line; 6-in. base of Ocala limestone; asphaltic concrete top surface; will vote Dec. 18 on \$850,000 bonds. (Lately noted.)

Fla., West Palm Beach—Details under Land Developments.

Fa., West Palm Beach—Palm Beach County Commrs., let contracts for 7 roads as follows: 3 mi. Stuart-Annie road, through Hanson Grant, and 5 mi. St. Lucie Ave. road, from Salerno to Stuart-Annie road, to McVay, Lindsay, Cocoa, Fla., at \$30,166.20; to R. Tomasello, Jupiter, Fa., for following: 2 mi. Tropical Farms road, at \$15,600; 4 mi. Kerns road, at \$4900; 3 mi. Mapp road, at \$8000; to M. F. Myers, at \$32,500 for 61,000 ft. Stuart-Annie road, from ferry to Lake Okeechobee; Mulford road, with steel drawbridge across south fork of St. Lucie River, to Champion Bridge Co., Atlanta, Ga., at \$38,000.

Ga., Atlanta—City will receive bids soon to repave Edgewood Ave. from Pryor to Courtland St., let contracts for street paving as follows: to Case & Cothran, concrete, 12th, from Piedmont Ave. to Piedmont Park; Highland Ave. from Highland View to Virginia Ave.; Barnett St. from North Ave. to Linwood Place; Robson Place, from Kirkwood road to Norwood Ave.; to Davis Construction Co., at \$2.44 per sq. yd., vibrolithic concrete, E. 5th St. from Jackson to Bedford Place; McDougald Construction Co., Willite, Magnolia St., from Marietta to Davis. Address The Mayor.

Ga., Athens—City plans improving and paving portion of certain streets; will vote Dec. 5 on \$50,000 bonds. Jas. Barrow, Clk.

Ga., Atlanta—Geo. W. West, Pres., Peters St. Improvement Assn., interested in widening Peters St. from S. Forsyth to Park St., West End; City to furnish \$140,000; C. E. Kauffman, Engr. in Dept. of Construction.

Ga., Camilla—City plans expending \$150,000 to pave 4 main streets; Dr. Spence, Mayor; O. H. Lang, Engr., Moultrie, Ga.

Ga., Cuthbert—City plans paving square and main streets, also installing white way; approximate cost \$125,000; Linton B. West, Mayor; O. H. Lang, Engr., Moultrie, Ga.

Ga., Lawrenceville—State Highway Comm., Atlanta, and Gwinnett County plan building road from Lawrenceville to DeKalb County line. Address County Commrs.

Ga., Thomasville—City plans expending \$100,000 for additional street paving. Address The Mayor.

Ky., Campton—State Highway Comm., Frankfort, Ky., plans letting contract for 10 mi. road from Campton toward Breathitt County line; Joe S. Boggs, State Highway Engr.

La., Bastrop—Morehouse Parish, Road Dist. No. 2, plans road building; will issue \$757,000 bonds; Lester White, Parish Engr.

La., Bastrop—Morehouse Parish plans building 150 mi. highway; contract will be let in about 6 weeks. Address Police Jury.

La., Crowley—City let contract to McIntosh Co., Oklahoma City, for street paving.

La., Homer—Claiborne and Lincoln Parishes contemplate building road from North Louisiana oil field at Homer to Ruston. Address Police Juries.

La., Shreveport—City receives bids until Nov. 27 to pave Rutherford St. from Line Ave. to Creswell St.; S. G. Wolfe, Sec.-Treas.

Md., Baltimore—Details under Land Developments.

Miss., Biloxi—City plans street improvements and beach protection; voted \$90,000 bonds; John J. Kennedy, Mayor.

Miss., Jackson—City plans grading certain streets, paving and laying sidewalks on new streets and constructing sewers; will vote Dec. 15 on \$250,000 bonds. Address The Mayor.

Miss., Jackson—Hinds County will receive bids until Dec. 5 to improve 3 roads as follows: .9 mi. Terry road; .9 mi. Clinton road; .64 mi. Canton road; plans, etc., from W. S. Wells, Chancery Clk., and W. B. Montgomery, County Engr.

Miss., Jackson—Hinds County will receive bids until Dec. 3 to open and prepare for grader, public road from point on Van Winkle and Jackson road to intersection of Jackson and Raymond road; plans, etc., from W. S. Wells, Chancery Clk.

Miss., Jackson—City let contract to Dunn Construction Co., Birmingham, Ala., to pave Poindexter St. from Robinson to Deer Park Ave.

Mo., Springfield—City contemplates widening Walnut St. from Kimbrough Ave. to Boulevard; Kimbrough Ave. to 100 ft. from St. Louis St. to National Cemetery; Elm St. from Jefferson Ave. to Boulevard; St. Louis St. from Kimbrough to Boulevard. Address The Mayor.

N. C., Charlotte—City is considering opening boulevard from West Trade St., along Irwin's Creek, and connecting with Belt Road, near proposed Ford assembling plant. Address City Commrs.

N. C., Danbury—Stokes County Highway Commrs., let contract to J. T. Plott, Greensboro, to grade and improve road from Hartman to James Place on Pine Hall-Dillard road; plans building road from Danbury

to Flat Shoal Church to connect with Germanton road.

N. C., Greensboro—City plans extending Liberty Place from Gaston to Bellemeade Sts.; P. C. Painter, City Mgr.

N. C., Murphy—Cherokee County plans building Andrews-Aquone-Franklin road; will vote Dec. 22 on \$25,000 bonds. Address County Commrs. (Lately noted to vote Dec. 15.)

Okl., Holdenville—City contemplates 42 additional blocks of street paving; J. D. Rives, Mayor.

Okl., Idabel—McCurtain County will grade and improve road east from Idabel to Arkansas line. Address County Commrs.

Okl., Oklahoma City—City let contract to Western Paving Co., at \$19,871.50, to pave underpass and construct storm sewer on E. 23rd St.; Warren E. Moore, Commr. of Public Works.

Okl., Oklahoma City—City and County will vote on Nov. 30 on \$1,825,000, for municipal improvements as follows: Repairing Exchange and Robinson Aves., and Walker St. viaduct, \$250,000; repair dam and reservoir, \$1,600,000; O. A. Cargill, Mayor. (Lately noted.)

Okl., Sayre—Beckham County plans building hard surfaced roads and permanent bridges; will vote Dec. 20, on \$300,000 bonds. Address County Commrs.

Okl., Wewoka—Seminole County plans building hard surfaced roads through County; contemplates voting on bonds. Address County Commrs.

S. C., Aiken—Aiken County will receive bids until Dec. 5 for 11.407 mi. State Route No. 28, from Sand-Bar Ferry Bridge, toward Ellenton, to Station 606-00, near Silverton; 28,027 cu. yds. sand-clay surfacing; Federal Aid Project No. 212; plans, etc., from State Highway Engr., Columbia, S. C.

S. C., Aiken—City plans expending \$40,000 for concrete paving on Richland Ave. from Hahn's Corner to Union St.; will let contract soon. Address The Mayor.

S. C., Conway—City plans paving 4 blocks around business square; Main and Elm Sts.; 3rd and 4th Aves. Address The Mayor.

S. C., Greenville—City plans repairing Pendleton St. pavement between Columbia and Greenville Ry. tracks, and city limits, toward W. Greenville. Address City Engr. Neves.

S. C., Moncks Corner—Berkeley County will receive bids until Dec. 7 for 9.529 mi. State Route No. 41, from point near 41 mi. siding, through St. Stephen, to extension of Santee River Bridge Project; 23,449 cu. yds. sand-clay surfacing; plans, etc., from W. C. Cathey, Div. Engr., 8 Seville Bldg., Orangeburg, or State Highway Engr., Columbia, S. C.

S. C., Sumter—Sumter County Permanent Road Comm., will receive bids until Dec. 6 to grade and construct creosoted timber bridges in Black River Swamp on Shiloh road; plans, etc., from Lee, Pennell & Murray, Engrs., Sumter.

Tenn., Greeneville—Details under Land Developments.

Tenn., Knoxville—Knox County let contract to Murray Construction Co., Knoxville, at \$12,500 for 10,000 sq. yds. hot top asphalt on Fountain City to Halls Cross Roads pike.

Tenn., Memphis—Details under Land Developments.

Tex., Angleton—Brazoria County will receive bids until Dec. 18 for 2 sections of roads as follows: 5.06 mi. State Highway No. 19-A, between Angleton and Columbia, and 7.85 mi. State Highway No. 19, from Bastrop Bayou to Oyster Bayou; also

247-ft. timber bridge over Oyster Creek; plans, etc., from E. N. Gustafson, Engr.-in-charge.

Tex., Brownsville—Cameron County plans additional highway improvements and road building; will vote soon on \$660,000 bonds; W. Washington, County Engr., O. C. Dancy, County Judge.

Tex., Cameron—Milam County will receive bids soon to gravel surface 4.13 mi. State Highway No. 43, from point 1 mi. southwest of Milano to approximately 4 mi. northeast of Milano; A. F. Mitchell, County Engr.; Jeff T. Kemp, County Judge.

Tex., Colorado—Mitchell County interested in placing concrete surface on Highway No. 1 and improving all roads; reported contemplating voting Dec. 15 on \$650,000 bonds. Address County Commrs.

Tex., Corpus Christi—Nueces County will receive bids, tentative date Dec. 21, for 10 mi. State Highway No. 12; bituminous macadam or concrete; cost \$230,000 to \$340,000; Calvin E. Coker, County Engr.; H. R. Sutherland, County Judge.

Tex., Dallas—City will receive bids until Dec. 3 for 140,000 sq. yds. street paving; approximate cost \$500,000; E. A. Kingsley, City Engr. (Lately noted.)

Tex., Dallas—Kessler Improvement, C. S. Mitchell, Pres., plans extending Colorado Blvd., 1¼ mi. through Kessler Park, Kessler Highlands, and Kessler Square, from Dallas Sanitarium to Stevens Park in Oak Cliff; Myers & Noyes, Engrs.

Tex., Decatur—Wise County, Road Dist. No. 2, will grade, construct drainage structures and lay crushed stone surface on 11.5 mi. road; approximate cost \$125,000; voted \$75,000 bonds; H. R. Smith, County Engr.

Tex., Denton—City plans paving streets bounding Teachers College campus; Ave. A., from W. Hickory to Chestnut; W. Chestnut, between Aves. A and B; Ave. B, from Chestnut to West; will also pave Oak St. Address J. W. Smith, Sec. of College.

Tex., El Paso—El Paso County plans 69 mi. road building; voted \$1,260,000 bonds; L. A. White, County Engr.; B. B. McClintock, County Judge.

Tex., Edinburg—Hidalgo County plans 13.76 mi. 18-ft. reinforced concrete base, with 1-in. rock asphalt pavement on State Highway No. 12, between Donna and Cameron County line; Federal Aid Project No. 374; estimated cost \$630,827.96; federal aid \$100,000; P. S. Devine, County Engr., Pharr, Tex.; J. C. Epperson, County Judge, Edinburg.

Tex., Ennis—City will receive bids until Dec. 3 to improve portions of following streets: Main, Dallas, McKinney, Crockett, Brown, Ennis, Knox, Baylor, Belknap, Decatur, Tyler, Gilmer and Clay; plans, etc., from G. C. Sanderson, City Sec., or City Engr.

Tex., Hallettsville—Lavaca County will receive bids until Dec. 20 to improve 14.23 mi. State Highway No. 3B, Sec. B.; 359,360 lbs. reinforcing steel; Federal Aid Project No. 373; W. H. Koether, County Engr. (Lately noted bids until Dec. 11.)

Tex., Henderson—Rusk County will receive bids until Dec. 13 for 4.1 mi. gravel road on State Highway No. 15-A, Pine Hill road, from point ½ mi. east of Chapman to County line near Pine Hill; plans, etc., from F. E. Hess, Engr., 310 Medical Arts Bldg., Dallas, Tex.

Tex., Hillsboro—City plans paving in Improvement Dist. No. 1; will vote Dec. 11 on \$15,000 bonds; W. P. Alderson, Mayor; A. M. James, City Sec.

Tex., Jasper—Ch. Engr., U. S. Bureau of Public Roads, Washington, D. C., approved plans for 6.06 mi. 16-ft. gravel road on State Highway No. 7, from Jasper to point near

Bear Creek; Jasper County, Federal Aid Project No. 317-A; estimated cost \$129,146.03; federal aid \$64,573.01; C. P. Hunter, County Engr.; A. D. Hancock, County Judge.

Tex., Leakey—W. E. Simpson, Engr., 414 National Bank of Commerce Bldg., San Antonio, Tex., is preparing plans for 18 mi. Kerrville-Rock Springs road, Real County; estimated cost \$90,000; J. L. Youngblood, County Judge.

Tex., Levelland—Hockley County will expend \$16,000 to grade and construct drainage structures on 7.26 mi. State Highway No. 7, from Lamb County line to Lubbock County line; C. L. Hasle, County Engr., Box 168, Memphis, Tenn. Lately noted. (See Machinery Wanted—Paving Materials; Paving Reinforcing.)

Tex., Linden—Cass County plans road building; will vote Dec. 18 on \$1,500,000 bonds. S. L. Henderson, County Judge. (Lately noted.)

Tex., Lubbock—City plans municipal improvements as follows: Street paving and storm sewers, \$360,000; extend light plant, \$50,000; white way, \$25,000; extend water system, \$15,000; build city hall and fire station, \$75,000; voted \$500,000 bonds; J. R. Germany, Sec.

Tex., McKinney—Collin County will receive bids until Dec. 11 to grade, construct drainage structures and build 6.19 mi. 18-ft. reinforced concrete Exall Highway; also to construct steel and concrete bridge; Federal Aid Project No. 402; plans, etc., from F. W. Cawthon, County Engr., and State Highway Dept., Austin, Tex.

Tex., Newton—Ch. Engr., U. S. Bureau of Public Roads, Washington, D. C., approved plans for 20.94 mi. 16-ft. gravel road on State Highway No. 7, from Sabine River to Jasper County line; Newton County, Federal Aid Project No. 339; estimated cost \$227,026.08; federal aid 50 per cent; V. O. Ellis, County Engr.; J. C. Ramsey, County Judge.

Tex., Orange—Orange County plans graveling 2½ mi. Echo road from Newton County to edge of town; Allie Payne, Commr.

Tex., Rock Spring—State Highway Dept., Austin, approved plans for 17.13 mi. State Highway No. 41, Edwards County; sledged stone base and crushed rock surface; approximate cost \$154,000; bids to be received soon; W. E. Simpson, Engr., 414 National Bank of Commerce Bldg., San Antonio; A. P. Allison, County Judge.

Tex., San Antonio—Meridian Highway Assn., capital \$100,000, incorporated with John C. Nicholson, Pres., Newton, Kan.; Ed. McRea, Sec.-Treas., Fort Worth.

Tex., Sherman—City let contract to McGuire & Cavender, Kansas City, Mo., at \$26,639 for 9 blocks of reinforced concrete pavement, curb and gutter.

Tex., Tyler—Smith County received low bid from T. A. Bradshaw, Lindale, Tex., at \$22,952.36 to grade and construct drainage structures on 6.13 mi. State Highway No. 64.

Tex., Waco—City let contract to Central Bitulithic Co., Dallas, Tex., at \$77,215, for permanent paving on Vermont and Colcord Sts., from 15th to 25th and on 15th, from West to Vermont.

Virginia—State Highway Comm., Richmond, received low bids for 8 road projects as follows:

Lunenburg County, 8.1 mi. concrete streets in Victoria, Ford & Harvey, Lynchburg, at \$26,772; Bedford County, 3 mi. grade, drain and concrete, from 3 mi. east of Bedford to Bedford, R. H. Langdon, Evington, Va., at \$29,876.87; Mecklenburg Coun-

ty, 2.4 mi. bituminous macadam from Chase City to Boydton, Kinsey Construction Co., Roanoke, at \$64,246.70; King William and Hanover Counties, 2.99 mi. gravel Manquin road, west, Hagedorn Construction Co., Greensboro, N. C., at \$47,509.92; Norfolk County, 13.51 mi. gravel from Deep Creek to North Carolina line, C. R. Sanderson, Oceania, at \$190,449.92; Hanover County, 4.89 mi. concrete from 2.99 west of Manquin to 6.6 mi. east of Mechanicsville, Pace Construction Co., Roanoke, at \$213,174.78; Russell County, 2 mi. grade and drain from Moorefield to Hamlin, W. S. Meadows, Coburn, at \$61,602.64; Augusta County, 2.5 mi. grade and drain from W. Augusta to Highland County line, Pace Construction Co., Roanoke, at \$82,629.86.

Va., Richmond—City let contract to John Curley, Richmond, at \$8269, to curb, gutter and improve driveways in Chimborazo Park, and grade, gravel, curb and gutter 32nd St.

Va., Winchester—State Highway Comm., Richmond, is having plans prepared for 4.15 mi. 16-ft. surface treated macadam road from Gore to West Virginia; approximate cost \$83,000; T. T. Loughborough, Dist. Engr.; Henry G. Shirley, Comm., Chmn. (Lately noted.)

Sewer Construction

Ala., Fairfield—Exchange Club of Fairfield, J. W. Brooks, Chmn., interested in construction of county sewer in Possum Valley; cost about \$1,000,000.

Ala., Tuscaloosa—City will construct storm sewers on various streets. Address The Mayor.

Ark., Pine Bluff—City let contract to J. P. McNulty, Pine Bluff, to construct sanitary sewer in Sewer Dist., No. 21, cost \$23,618. (Lately noted.)

Fla., Jacksonville—T. C. Imeson, Chmn. of City Comm., receives bids until Dec. 12 to furnish all materials except the materials stipulated in paragraph 8 of General Stipulations and constructing storm water and sanitary sewers through Springfield Park from Laura St. to a point west of 4th and Perry Sts.; approximately 2268 ft. of 16-in. cast iron sanitary sewer on piling foundation; also to furnish 1656 ft. of 16-in. class A, Standard A. W. W. A. cast iron pipe, material to be delivered f.o.b. Jacksonville.

Fla., Miami—Details under Land Developments.

Fla., St. Petersburg—Details under Land Developments.

Fla., West Palm Beach—Details under Land Developments.

Ga., Bainbridge—City plans expending \$100,000 in sewerage extension; work to begin first of year; O. H. Lang, Engr., Moultrie, Ga.; A. B. Conger, Mayor.

Ga., Columbus—City, Walter A. Richards, Mgr., bids opened Nov. 26 for construction of sections of reinforced concrete sewer along Cook's branch; alternate bids will be received for sewers at the following locations:

Bid No. 1—Section from east side of 2nd Ave. culvert to west side of 3rd Ave. culvert; east side of 3rd Ave. culvert to south side of 19th St. culvert; sections from north side of 19th St. culvert to 20th St., consisting of 1333 lin. ft. of reinforced concrete sewer; 1663 cu. yds. of earth excavation; 147 cu. yds. of rock excavation; 44,000 brick in invert.

Bid No. 2—Section from east side of 2nd Ave. culvert to west side of 3rd Ave. culvert; section from north side of 19th St. to south side of 21st St. culvert, consisting

of 1385 lin. ft. of reinforced concrete sewer; 2338 cu. yds. of earth excavation; 119 cu. yds. rock excavation; 45,700 brick in invert; plans, etc., at office of Supt. of Public Works.

La., Crowley—City, P. S. Pugh, Mayor, let contract to Mackintosh Co., First National Bank Bldg., Oklahoma City, Okla., for construction of sewer system; M. M. Bernard, Engr. (Lately noted.)

Miss., Jackson—Details under Road and Street Construction.

Md., Baltimore—City—Howard W. Jackson, Pres. Board of Awards, opens bids Dec. 5 for building sewers and drains as embraced in Sanitary Contract No. 207; work comprises approximately 13,500 ft. of sewers and drains from 6 to 48 in. in diam.; Steuart Purcell, Ch. Engr.

Okla., Oklahoma City—Details under Road and Street Construction.

Okla., Ponca City—City defeated \$11,000 bonds for storm sewers. Address The Mayor. (Lately noted.)

Okla., Tulsa—City, H. F. Newblock, Mayor, voted \$800,000 bonds for storm and sanitary sewers and \$150,000 bonds for park extension and improvement. (Lately noted.)

S. C., Hartsville—Details under Water Works.

S. C., Spartansburg—City—O. T. Gallman, Street and Sewer Commr., will soon call for bids for laying 18,150 ft. of sewage pipe at Austin St. outfall. (Lately noted voting bonds.)

Tenn., McKenzie—City is considering installation of sewerage system; may vote on \$85,000 bonds. Address The Mayor.

Tenn., Memphis—Details under Land Developments.

Tenn., Union City—City voted \$125,000 bonds for construction of sewerage system and electric light plant. Address The Mayor.

Tex., Dallas—City—M. G. James, City Sec., opens bids Nov. 30 for constructing addition to sewage disposal plant; plans include laying new line from S. Dallas to disposal plant located in Trinity River Bottom, and 12 Imhoff tanks; cost about \$500,000.

Tex., Laredo—City let contract at \$83,040.32 to Kirkwood & Wharton, San Antonio, Tex., for extension of storm sewer system to that section of city not included in first district to have storm sewers and paving. (Lately noted.)

Tex., Lubbock—Details under Road and Street Construction.

Tex., Milford—City—J. M. Golston, Mayor, is having preliminary plans prepared by Ellrod Engineering Co., 3124 Main St., Dallas, for disposal plant and sewer system.

Va., Norfolk—City—Walter H. Taylor, 3rd., Director of Public Works, receives bids until Dec. 30 for laying sewers and drains with appurtenances in St. Julian Ave., 41st St. and 37th Sts., work includes approximately 410 ft. of 20-in., 240 ft. of 18 in., 80 ft. of 15-in., 925 ft. of 8-in., 260 ft. of 4-in. terra cotta pipe; two clean-out boxes; 2 manholes; 7 catch basins; separate proposals will be received at same time and place for building a light trestle and laying 16-in. cast iron sewer outfall on same, distance of 400 ft., westward from Luxembourg Ave.

Telephone Systems

Okla., El Reno—Pioneer Telephone Co., T. J. Donovan, right of way Supt., contemplates building conduit system to carry telephone wire to London St., where new telephone exchange building is to be erected; estimated cost of improvements \$40,000.

S. C., Greenville—Southern Bell Telephone & Telegraph Co., G. L. McCullough, Dist. Mgr., main office Atlanta, Ga.; plans expending \$180,000 during the next two years on expansions and improvements.

Tex., Galveston—Southwestern Bell Telephone Co., main office St. Louis, Mo., will probably erect another exchange building; J. S. Hanna, local mgr.

Textile Mills

Ala., Andalusia—O. L. Benson, A. C. Darling and others committee to investigate proposition of establishing textile mill.

N. C., Burlington—Regarding Burlington Mills, Inc., J. Spencer Love, Mgr. of Gastonia Cotton Mfg. Co., Gastonia, N. C., advises the Manufacturers Record: "We will start at once construction of buildings for our mill at Burlington. It is probable that we will build a 1-story building and warehouse containing approximately 65,000 sq. ft.; mill village will contain about 75 houses; no contracts have yet been placed. (Lately noted.)"

N. C., Raleigh—Details under Electric Light and Power Plants.

South Carolina and Georgia—New England Southern Mills, Boston, Mass., formed by directors of International Cotton Mills, Boston, has taken over the following mills: Lancaster Cotton Mills, Lancaster, S. C.; Fort Mill Mfg. Co., Fort Mill, S. C.; Eureka Cotton Mills, Chester, S. C.; Springstein Mills, Chester, S. C.; Pelzer Mfg. Co., Pelzer, S. C.; Tucapau Mills, Tucapau, S. C.; and Stark Mills, Hogansville, Ga.; mills will use when running full 140,000 bales of cotton annually; 30,000 spindles are located in Canada, 70,000 spindles in New England and 486,000 spindles in South Carolina and Georgia; output of mills consist of print cloth, wide sheeting, sheeting and drills for export, gingham, hose and belting duck, and tire fabrics; companies will be under management of Lockwood, Greene & Co., Boston; Col. Leroy Springs is director of New England Southern Mills; the only financing of the company will be the sale of \$4,000,000 notes which will be offered by Lee Higginson & Co.

S. C., Greenville—American Spinning Co., J. H. Morgan, Pres., will open bids soon for erection of addition to cloth room; 27x104 ft.; brick; cost \$10,000; J. E. Sirmine & Co., Engrs., Greenville. (Lately noted.)

S. C., Langley—Langley Cotton Mills, Geo. E. Shofford, V. P., will soon let contract for erection of cloth room addition; Lockwood, Greene & Co., Engrs., Greenville, S. C.

Tex., El Paso—El Paso Cotton Mills Co., lately noted incorporated with \$500,000 capital, organized with A. P. Colers, Pres.; H. M. Moore, Acting Sec.; T. P. Henderson, Mgr.; will erect plant for the manufacture of denims; concrete or standard brick construction; will install 5000 spindles and about 200 looms; electric power plant; develop about 600 h. p.; direct connected units; will soon open building and machinery bids.

Water Works

Ala., Bessemer—Alabama Public Service Comsn. authorized Alabama Water Co., to extend water mains from Bessemer to Hueytown, Dolomite, Brighton and Wilkes; company has applied for permission to issue \$175,000 first and refunding mortgage bonds.

Ala., Birmingham—Details under Land Developments.

Fla., Miami—Details under Land Developments.

Fla., St. Petersburg—Details under Land Developments.

Fla., West Palm Beach—Details under Land Developments.

Ga., Macon—Water Works Commrs. let contract to R. H. Smallings Sons to erect pump house; brick and reinforced concrete; 26x30 ft. (Lately noted.)

Ky., Elizabethtown—City, Sterling Wells, Clk., receives bids until Dec. 17 for following water works improvements: Construction of 750,000 gal. gravity type filtration plant, in 2 units; furnishing 4 centrifugal pumps and electric motors; bids will be received separately on furnishing and installing filter equipment; B. H. Klyce, Engr., 720 4th and 1st Natl. Bank Bldg., Nashville, Tenn.

Md., Baltimore—City, A. Bernard Siems, Water Engr. has tentative program of proposed expenditures from \$10,000,000 water loan, covering period of from 7.5 yds. to 10 years; following are included: Expending \$4,000,000 for impounding works; \$250,000 for constructing new and improvements to existing service stations; \$350,000 for constructing new and enlarging present reservoirs; \$400,000 for purchase of plants of remaining private water companies; \$5,000,000 for distribution mains (Supply, Feeders & Distributors); Howard N. Jackson, Pres. Board of Awards. (Lately noted voting \$10,000,000 water loan.)

Md., Baltimore—Details under Land Developments.

Okla., Oklahoma City—Details under Road and Street Construction.

S. C., Huntsville—City contemplates water and sewer extensions; may vote on \$100,000 bonds. Address The Mayor.

S. C., Newberry—City votes Dec. 11 on \$125,000 bonds for improving and extending water works system. Address The Mayor.

Tenn., Memphis—Details under Land Developments.

Tex., Dallas—City, S. R. Alredge, Mayor, is having survey made by J. C. Nagle and R. A. Thompson, Hydraulic Engrs., for developing water supply reservoir; \$5,000,000 bonds available. (Previously noted.)

Tex., Lubbock—Details under Road and Street Construction.

Woodworking Plants

Ala., Tuscaloosa—Kraft Cabinet Kompany of Pell City, Ala., will move plant to Tuscaloosa; has merged with Oak City Furniture Co.

Ga., Savannah—R. G. Cox, Supt. S. & A. Ry., contemplates establishing plant to manufacture cross arms, invite prices on suitable machinery including gang boring machine and machine to chamfer the edges. (See Woodworking Machinery.)

La., New Orleans—Muller Furniture Manufacturing Co., increased capital from \$50,000 to \$100,000.

Md., Baltimore—Details under Lumber Enterprises.

Md., Cumberland—Cumberland Sash & Door Co. increased capital from \$30,000 to \$250,000.

Mo., Missouri—Pokorny & Co., capital \$30,000, incorporated by J. Pokorny, M. B. Seltzer and others.

Mo., St. Louis—Sandusky Cooperage & Lumber Co., capital \$10,000, incorporated with H. R. Huntington, Pres.; A. O. Theobald, Sec.

N. C., High Point—Revolution Veneer & Panel Co., Charles W. Perry, Sec.-Mgr., will expend \$10,000 on plant improvement and additional equipment, increasing produc-

tion; increased capital from \$50,000 to \$150,000.

N. C., High Point—Ault Manufacturing Co., capital \$50,000, incorporated with L. L. Allen, Pres.; Vernaux M. Ault, Sec.-Treas.

N. C., Mount Airy—Southern Mantel Co., capital \$25,000, incorporated by A. E. Tilley, J. T. Smith and others.

S. C., Columbia—Period Furniture Co., incorporated by D. B. F. Dell, E. B. Cranby and others.

Tenn., Nashville—Jacobs Frame, Door & Sash Co., H. J. Jacobs, Propr., will erect plant corner 18th and Cedar Sts.; construction by owner; will operate plant in conjunction with contracting business.

Tex., Beaumont—Beaumont Sash & Door Co., LeRoy King, Pres., increased capital from \$60,000 to \$100,000.

W. Va., Huntington—E. M. Allen Co., capital \$25,000, incorporated by W. W. Starkey, W. H. Daniels and others.

FIRE DAMAGE

Ala., Selma—Plant of the Webb-McCall Planing Mill; loss \$20,000; owned by Homer D. Webb and J. W. Robinson, Jr.

Ala., Talladega—Mr. Morgan's barn; Henderson Drug Co. and Hubbard Grocery Co.; total loss about \$50,000.

Ark., Pine Bluff—C. M. Ferguson & Sons' wholesale grocery company; loss \$30,000.

Ark., Smackover—Fifteen buildings; total loss \$77,500.

Fla., Port St. Joe—St. Joe Training Co.'s store; loss \$12,000.

Ga., Barnsville—Dormitory at Gordon Institute; loss \$100,000.

Ky., Moorman—Church of God Tabernacle Address H. B. Daniel, Chmn., Bldg. Comm.

La., Homer—J. R. Madden's store; loss \$10,000.

La., Loreauville—Vida Sugar Refinery; loss \$100,000.

La., New Orleans—Emerson Shoe store and the Rex Hat store on Rampart St.; loss \$50,000.

Md., Centerville—Leo B. Callahan's residence near Damsontown, several miles from Centerville.

Md., Ellicott City—Patapasco Manor Sanitarium, near Ellicott City, Dr. W. Rushmer White, Supt.; loss \$35,000.

Md., Baltimore—Building at 612 Pratt St., occupied by Radford-Wright-Sanders Co., loss not estimated.

Miss., Vicksburg—Picket Printing Co.'s plant on Washington and Crawford Sts.

Mo., Bonne Terre—Fifteen buildings owned by National Lead Co., of St. Louis, Mo., occupied by St. Louis Smelting & Refining Co., estimated loss \$100,000.

N. C., Asheville—Battery Park hotel being razed on Battery Park Hill; destroyed two wings and piles of lumber.

N. C., Gastonia—Gaston Sanatorium, Drs. Henry Glenn and D. A. Garrison, owners; loss \$50,000.

N. C., Goldsboro—Warehouse of the North Carolina Tobacco Growers' Assn.; loss \$250,000.

N. C., Spencer—Spencer Hdwe. Co. and T. W. Grant grocery store and residence, owned by D. L. Arcey estate, of Salisbury; loss between \$30,000 and \$40,000.

N. C., Warsaw—Middleton & Hines' brick

building valued at \$18,000 and cotton belonging to Cooperative Marketing Assn., valued at \$40,000.

N. C., Warsaw—Cooperative Cotton Growers' Assn.'s building occupied by Middleton & Hines; loss \$40,000.

Okla., Broken Arrow—Crystal Theater; Kinkaid & Lloyd's store; McKinna Variety Store; loss \$35,000.

S. C., Jonesville—C. M. McWhirter's warehouse; loss \$15,000.

S. C., Spartanburg—Cotton warehouse owned by C. M. McWhirter, of Jonesville, S. C.; estimated loss \$15,000.

Tenn., Lebanon—Lignon Hardware Co., Stratton Hardware Co., H. W. Cook Hardware Co.'s stores; City Cafe; Dixie Motor Co.'s garage; loss \$150,000.

Tenn., Martin—Stafford Milling Co.'s gin; loss \$40,000.

Tex., Lorena—T. F. Bowman's 2 dwellings; loss \$10,000.

Tex., Mildred—Humble Oil & Refinery Co.'s loading rack near Millville; loss about \$100,000.

Tex., Mingus—J. M. Doss' drug store, a hotel, a barber shop and a tailor shop; total loss \$40,000.

Tex., San Augustine—The Lang Hotel, owned by Mrs. A. J. Lang; loss not estimated.

Va., Danville—Lysander B. Conway's residence; loss \$30,000.

Va., Farmville—Four-story south wing of State Normal School; loss about \$200,000.

W. Va., Logan—Bell Department Store; loss \$10,000.

Michael Miller, Vice-Chmn., Executive Comm., Equitable Bldg., will erect granite synagogue and synagogue house, Garrison Blvd. and Dalrymple Ave.; cost \$250,000; Stanislaus Russell, Archt., 11 E. Lexington St., Baltimore.

Mss., Bay Springs—Presbyterian Church has started work on building to replace burned structure. Address The Pastor.

Miss., Jackson—Rankin St. Methodist Church, S. P. Wilson, Chmn., Bldg. Comm., plans to erect building, Union and Winter Sts.

Miss., Starkville—Presbyterian Church plans to erect \$60,000 building. Address The Pastor.

Mo., Carthage—First M. E. Church, South, has low bid by Jas. Logan & Co., Carthage, at \$48,991, exclusive of heating (about \$5000) for erection of Sunday school unit; will probably have low bidder to revise estimates. (Previously noted.)

Okla., Tulsa—First Presbyterian Church, Edw. Watters, 526 Robinson Bldg., Sec., Bldg. Comm., will probably have plans and specifications ready for bids in about one week for erection of fireproof addition; cost about \$300,000; 2 stories and basement; about 95x140 ft.; tower to connect new and present structures; Hawk & Parr, Archts., Oklahoma City; the following are chairmen of committees: Furnishings and Decorations, E. P. Harwell; Lighting and Lighting Fixtures, C. E. Buchner; Organ, W. F. Stahl; Heating and Ventilation, J. M. Chandler. (Lately noted.)

Tex., Dallas—Trinity Lutheran Church, Rev. W. F. Klindworth, Pastor, will probably let contract soon for erection of brick building, Forest Ave. and Meadow St., South Dallas; auditorium to seat 300; art glass windows; bids opened.

Tex., New Braunfels—Baptist Church has plans by Will N. Noonan, Moore Bldg., San Antonio, for 56x33-ft. brick veneer building; main auditorium and 4 classrooms; those desiring to estimate get in touch with Rev. Mr. Young, New Braunfels.

Tex., Peniel—Baptist Church plans to erect building. Address The Pastor.

Va., Covington—Emmanuel Episcopal Church, E. M. Nettleton, Chmn., Bldg. Comm., is having campaign for \$100,000 to erect Gothic type stone building on site of present structure, Maple Ave.; tower with chimes, chapel to seat about 275, parish house wing.

Va., Lynchburg—First Baptist Church, Cornelius Gilbert, Chmn., Bldg. Comm., plans to improve Sunday school section; Stanhope S. Johnson, Archt., Lynchburg.

Va., Lynchburg—Rivermont Baptist Church opens bids Nov. 27 for erection of 3-story red brick Sunday school and department building on Bedford Ave.; Indiana limestone trim, 53x85 ft., ell-shape; Stanhope S. Johnson, Archt., Lynchburg.

Va., Richmond—Meade Memorial Episcopal Church, Willis C. Pulliam, Chmn., Bldg. Comm., will probably select Carneal & Johnston as architects for new church and parish house, Cowardin Ave. and Bainbridge St.; work to be started about Jan. 1. (Lately noted.)

W. Va., Huntington—Twentieth St. Baptist Church, Rev. B. F. Caudill, Pastor, 2105 Fifth Ave., plans to erect \$80,000 building, date of starting construction not definite; about 70x120 ft., probably brick with stone trim, tile roof, hardwood floors, heating not decided; architect not selected. (Lately noted.)

W. Va., Huntington—Ohev Shalom Congregation, A. Solof, Chmn., Architectural

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Fla., Tampa—Egypt Temple, A. A. O. N. M. S., has broken ground for foundation of \$125,000 Temple. (Previously noted.)

La., Shreveport—Mithra Grotto, C. P. Spring, member of Bldg. Comm., rejected bids for erection of temporary auditorium in Highland section, and bidders will revise bids and resubmit them at ceremonial meeting Dec. 14; wood with steel frame; 106x134 ft.; factory maple and colored concrete floors; Sheetrock plaster board; G. I. ventilators; built-up roof, Barrett specifications or equal; Jones, Roessle, Olschner & Wiener, Archts., Maison Blanche Bldg., New Orleans; C. W. King, Asso. Archt., First Nat. Bank Bldg., Shreveport. (Lately noted.)

N. C., Charlotte—Phyllis Wheatley Branch of Y. W. C. A., colored, plans to erect \$15,000 building.

Tex., San Antonio—Phelps & DeWees, Archts., Gunter Bldg., San Antonio, will open bids Nov. 30 for erection of \$30,000 building, North St., near Alamo St., for San Antonio Labor Temple Assn., Jack Horner, Pres.; cost \$50,000, 2 stories and basement with foundation to carry 2 additional stories, reinforced concrete. (Lately noted.)

Tex., San Antonio—Young Men's Christian Assn., R. L. Hillyer, Chmn., Bldg. Comm., will have plans finished Dec. 1 and call for bids latter part of Dec. for erection of 5-story fireproof building about 106x125 ft., brick, reinforced concrete and steel frame, concrete floors and foundation, flat roof, hollow and interior tile, metal doors, vaults, vault lights, ventilators, rolling partitions, steel sash and trim, wire glass, tile swimming pool; interior plans by Sherman W. Dean, Archt., Bldg. Bureau, International Comm., Y. M. C. A., 347 Madison Ave., New York; Adams & Adams, Archts., Gibbs Bldg.; W. E. Simpson, Structural Engr., Nat. Bank of Commerce Bldg., both San Antonio. (Previously noted.)

Va., Lynchburg—Marshall and Hill City Lodges, A. F. & A. M., Ernest Williams, Chmn., Bldg. Comm., are reported to be considering erection of 4- and 5-story temple on Ninth St.; cost about \$200,000; elevator; auditorium and kitchen on roof, surrounded by promenade; tentative plans by Heard & Chesterman, Lynchburg. (Previously noted to postpone erection of \$500,000 temple.)

Bank and Office

Fla., Palmetto—Manatee County State Bank is erecting building, Main and Myrtle Sts.; Spanish mission style; 1-story with colonnade to curbing; 2 stores and banking room.

Mo., Kansas City—George A. Breon & Co., Geo. A. Breon, Pres., purchased site, Grand Ave. and 24th St., for an 8 or 10-story office building.

N. C., Charlotte—Elizabeth Realty Co. purchased Charlotte Bank and Trust Co. Bldg. and plans to remodel.

Tenn., Knoxville—Realty Syndicate, Chas. L. Henck, Pres., is receiving bids and will probably let contracts at once for erection of \$65,000 Flatiron Building, Broadway and Central St., North Knoxville; 3 stories, 160x214x149 ft.; white stone for first story, balance brick; T-shape arcade and stores on first floor, offices above; R. F. Graf & Sons, Archts., Arnstein Bldg., Knoxville. (Contract lately noted let.)

Tenn., Vonore—Bank of Vonore will erect 2-story building; brick and concrete, 30x70 ft.; bank on first floor, offices and Masonic lodgeroom above.

Va., Wyatt—Bank of Wyatt will erect fireproof building.

W. Va., Huntington—Union Bank & Trust Co., Robt. L. Archer, Pres., plans to begin construction of 15-story bank and office building at 4th Ave. and 9th St. as early as possible in 1924; cost about \$500,000, fireproof; Meanor & Handloser, Archts., Robson-Prichard Bldg., Huntington. (Previously noted.)

Churches

Fla., Orlando—Frohman, Robb & Little, 140 Boylston St., Boston, Mass., are preparing plans for erection of Protestant Episcopal Cathedral on site of present church structure at Jefferson and Main Sts.; portion of naves and aisles as first unit to cost \$80,000; Rev. Mr. Long, Dean, Orlando.

Fla., Tallahassee—Presbyterian Church plans to remodel building. Address The Pastor.

Ky., Moorman—Church of God Tabernacle, H. B. Daniel, Chmn., Bldg. Comm., may rebuild structure noted burned.

La., Welsh—Methodist Church, Rev. R. L. Weldon, Pastor, plans to erect building.

Md., Baltimore—Beth Tilloh Congregation,

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Comm., will receive competitive plans from architects and make selection before Jan. 1, 1924, for \$200,000 synagogue. (Previously noted.)

W. Va., Martinsburg—First Baptist Church plans to erect building at Wiley and Spruce Sts.; cost \$200,000, exclusive of furnishings. Address The Pastor.

City and County

Ala., Anniston—Vault and Offices—Calhoun County Board of Revenue, W. H. Hanna, Chmn., have not let contract for building fireproof vault and offices for Judge of Probate and plans may be revised by Lockwood, Poundstone & Billie, Archts., Anniston. (Lately noted.)

Fla., Arcadia—Jail—DeSoto County Board of Commrs., B. Vance, County Auditor, selected W. B. Talley, Lakeland, Fla., to prepare plans for new jail building and also plans for reconstruction of present structure; will probably vote on bonds; matter to be further considered on Dec. 3. (Lately noted.)

Fla., Jacksonville—Stadium—City, Milton E. Bacon, Chmn., Playground and Recreation Comm., P. O. Box 148, plans to erect \$250,000 to \$300,000 stadium; ultimate seating capacity 40,000; architect and contractor not selected. (Lately noted.)

Fla., Lake Butler—Jail and Temporary Courthouse—Union County Commrs. will consider bids at January meeting for erection of fireproof jail, and have also decided to proceed with construction of temporary courthouse on public square.

Ga., Augusta—Record Room—Board of Commrs. of Roads and Revenues of Richmond County, H. A. Norrel, Clk., will receive bids at courthouse until Dec. 3 for furnishing necessary labor and material and constructing fireproof record room on courthouse lot; plans and specifications from Story & Clark, Archts., 208 Leonard Bldg., Augusta, and may be seen at office of Board of Commrs., Augusta, and Builders Exchange, Atlanta, Ga.

N. C., Wilmington—Courthouse—New Hanover County Board of Commrs., Thos. K. Woody, Clk., will receive bids until Dec. 21 for construction, erection and completion of 4-story, steel and reinforced concrete building, 64x118 ft., on east side of present courthouse, facing on Princess St.; Herbert C. Shivers, New York and Wilmington, and Lesley N. Boney, Wilmington, Asso. Archts.; plans and specifications from Mr. Boney. (Previously noted.)

Tex., Lubbock—City Hall—City, J. R. Germany, Sec., voted \$75,000 bonds to erect city hall. (Lately noted.)

Va., Norfolk—Jail Addition—Board of Public Works, Walter H. Taylor, 3rd., Director, will erect interior addition to city jail; bids opened Nov. 27.

W. Va., Follansbee—Municipal Building—City, L. A. Diller, Mayor, will vote Dec. 18 on \$60,000 bonds to erect municipal building. (Lately noted.)

Dwellings

Fla., Miami—Miss Mary H. Mulray will erect \$13,000 Spanish type residence at Coral Gables; H. George Fink, Archt., Miami.

Fla., Miami—Jos. W. Walsh is erecting \$10,000 residence at Coral Gables; H. George Fink, Archt., Miami.

Fla., Okeechobee City—W. J. Conners will erect 10 dwellings on demonstration farms at once and plans to erect additional dwellings later.

Fla., St. Augustine—Mayor John T. Al-

sap, Jr., and A. V. Snell, Mgr., Chamber of Commerce, are interested in erection of dwelling to be used as winter White House.

Md., Baltimore—Alexander Herved will erect 3 dwellings, south side Overlea Ave., east of Evergreen Ave.; 24x28 ft.; total cost \$10,000.

Md., Baltimore—Sidney T. Dyer will erect 19 two-story brick dwellings, west side Robb St., south of Montpelier St.; 20, 18x 30 ft., remainder 17 x 30 ft.; slate roofs; hot air heat; total cost \$57,000; John R. Forsythe, Archt., 4305 Penhurst Ave.; Atlas Construction Co., Contr., 16 E. Lexington St., both Baltimore.

Md., Baltimore—Alex. M. Lech, 121 Montebello Terrace, will erect 2 frame cottages, north side Ruekert Ave., west of Holden Ave.; 2½ stories; about 26 x 26 x 29 ft. each; total cost about \$10,000.

Md., Baltimore—Melvin Andrews and others will erect 4 two-story brick dwellings, east side Copley Ave., south of Hayward Ave.; about 16x44x22 ft., total cost \$18,000.

Md., Catonsville (Branch Baltimore)—Robt. R. Grubbs, care Stewart & Co., Howard and Lexington Sts., Baltimore, will erect residence on Forest Drive, Summit Park.

Md., Catonsville (Branch Baltimore)—J. Dell Porter, Locust Drive, will erect 2 dwellings on same street.

Mo., Clayton (Ind. Branch St. Louis)—Jas. F. Halley, 3716A Hydraulic St., will erect brick residence, Clayton Rd., near Wydown Blvd., Moorlands; 36x40 ft., cost \$18,000.

Mo., St. Louis—May Building & Investment Co., 808 Chestnut St., will erect 4 brick tenements, 4432-36-40-44 Shaw Ave.; total cost \$40,000; 2 stories, 34x50 ft., composition roofs, steam heat; Oliver J. Popp, Archt., Odd Fellows Bldg., St. Louis.

Mo., St. Louis—West End Realty & Construction Co., 6229 Delmar Blvd., will erect 2-story brick tenement, 1700 S. Vandeventer St., 38x45 ft., composition roof, hot air heat; cost \$10,000; C. L. Thurston, Archt., 6229 Delmar Blvd.

N. C., Charlotte—J. H. Carson Co. will erect number of 5-room bungalows in connection with development; amount of expenditure \$75,000; construction by owner. (See Mch. Wanted—Lumber.)

N. C., Charlotte—Walter Davidson will open bids Dec. 1 for erection of \$20,000 residence; 8 rooms, brick veneer, slate roof, oak floors, vapor heat, electric lights; Louis H. Asbury, Archt., 1212 Realty Bldg., Charlotte. (Lately noted.)

N. C., Hamlet—J. P. Gibbons will open bids Dec. 1 for erection of hollow tile and brick veneer residence; cost about \$75,000; 15 to 18 rooms; oak floors, interior tile, plaster board, green tile roof, electric lights, vapor heat, \$3800; Louis H. Asbury, Archt., 1212 Realty Bldg., Charlotte, N. C. (Lately noted under Dwellings, N. C., Charlotte.)

N. C., Wilmington—Mrs. Graham Kenan purchased dwelling at 1706 Market St. and plans to expend \$50,000 for improvements.

S. C., Greenville—S. W. Reams, owner, Mountain City Foundry, will erect \$16,300 five-room bungalow on Lloyd St.; Martin & Ward, Archts.; Morris-McKoy Co., Contrs., both Greenville.

Tenn., Memphis—J. L. and W. E. White purchased tract on Poplar Ave., between McLean St. and Evergreen Blvd., and will erect number of dwellings in connection with development. (See Buildings Proposed—Hotels and Apartments.)

Tex., Dallas—D. A. Barnett will erect

\$17,500 dwelling, 5816 Swiss St.; 9 rooms, brick veneer.

Tex., Dallas—W. A. Cooke has permit to erect \$11,000 cottage, 704 Nesbit St.; 7 rooms, brick veneer.

Tex., Dallas—J. C. Cristler will erect \$20,000 residence, 5750 Swiss St.; 10 rooms, brick veneer.

Tex., San Antonio—Dr. J. W. Nixon, Jr., has low bid by G. W. Mitchell at \$14,832 for erection of residence in Monte Vista; 2 stories, hollow tile and stucco; other low bids as follows: Williams Radiator Co., heating, \$891, with alternate \$1100; A. H. Shafer, plumbing, \$1616; Crowther Electric Co., electrical work, \$628; Beverly W. Spillman, Archt., Alamo Bank Bldg., all San Antonio. (Lately noted.)

Government and State

Ga., Fort Benning—Officers' Quarters, Hospital—Wm. McK. Scott, Constructing Quartermaster, has low bid from E. A. Baehl & Co., Leavenworth, Kan., for construction of 6 double sets of officers' quarters and 3-story reinforced concrete hospital building, 48x288 ft., fireproof, brick and tile, Spanish tile roof, concrete floors, hollow fireproof and interior tile, metal doors, ventilators, steel sash and trim. (Lately noted.)

S. C., Greenville—Post Office and Court House—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until Dec. 18 for construction of new mailing vestibule with fuel room beneath, about 37x19 ft. in plan, with brick exterior wall with non-fireproof interior and roof construction, a new parcels post room in basement and lift enclosure, at post office and court house; drawings and specifications from Custodian at site or from office Supervising Archt.

Tex., Paris—Post Office and Courthouse—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until Dec. 27 for construction of post office and courthouse; 1 story and basement, approximately 109x88 ft., brick and stone facing, fireproof except roof; drawings and specifications from Custodian at site or from office Supervising Archt.

Hospitals, Sanitariums, Etc.

Fla., West Palm Beach—Dr. G. M. Dawson, Guaranty Bldg., and others, plan to organize Palm Beach Hospital Asso., Inc., and erect hospital.

Ky., Louisville—Waverly Hills Tuberculosis Sanatorium, Wm. E. Morrow, Chmn., Finance Comm., states construction of \$1,000,000 tuberculosis hospital at Waverly Hills and 18th Street Rd. will start about March 15; Arthur Loomis, Archt., Todd Bldg., Louisville; \$750,000 city bonds sold, \$250,000 Jefferson County tax levy to provide remainder. (Previously noted.)

Md., Ellicott City—Patapsco Manor Sanitarium, Dr. W. Rushmer White, Supt., will erect hospital building to replace structure noted burned near Ellicott City at \$35,000 loss.

Mo., Kansas City—St. Luke's Hospital, Bishop Sidney C. Partridge, Pres., Board of Directors, will erect \$100,000 nurses' home, Mill Creek Pkwy. and 44th St.; 3 stories and basement, brick; accommodate 76; dining rooms, kitchens, gymnasiums, etc., on first floor, sleeping quarters above; Keene & Simpson, Archts., Kansas City.

N. C., Asheville—Sisters of Our Lady of Mercy plan to erect nurses' home group of cottages at St. Joseph's Sanitarium on Biltmore Ave.

N. C., Lexington—Dr. A. J. Smith plans

to start construction within about 6 weeks on additions to building on N. Main St. for hospital. (Previously noted.)

S. C., Anderson—St. Francis Xavier Hospital plans to erect infirmary building.

Tex., Hereford—Deaf Smith County, W. M. Megert, Judge, plans to establish hospital; election Dec. 20 on \$50,000 bonds.

Hotels and Apartments

Ala., Birmingham—T. H. Molton is reported to have purchased site at northwest corner of Fifteenth Ave. and Twenty-first St. and is having plans prepared for the erection of a \$1,500,000 hotel; at least 10 stories with 350 rooms. Wire from Molton Realty Co. states: "Confirm reports for purchase of hotel site. Mr. Molton out of city for some time. We are unable to furnish details at present."

Ala., Tusculumbia—E. J. Henniger, chmn., Jno. W. Johnson, T. R. Jones, and Jno. D. Rather, is committee appointed to confer with representative of a bonding company, in regard to proposed erection of a \$100,000 hotel.

Ark., Fayetteville—Jas. A. Ward, Fort Smith, has purchased the Oriental Hotel and will expend \$15,000 for improvements including new porches, interior improvements, elevator, running water will be installed in all rooms and a number will be provided with bath rooms.

Ark., Little Rock—St. Louis Hotel Co., Props., Jefferson Hotel, St. Louis, lately reported to erect \$1,500,000 hotel, wires Manufacturers Record that report was not true.

Fla., Bradentown—Manavista Hotel Co., \$250,000 capital, has been formed with temporary officers as follows: R. E. L. Smith, of Tampa, Pres.; Wallace Tervin, of Bradentown, vice-pres.; J. M. Bradley, Secy. and Treas., and plan purchasing the Manavista Hotel from Max Horr and plan improvements and additions, including addition along Main St. frontage and coating old structure with stucco to match the new; Spanish design with 125 guest rooms.

Fla., Miami—J. E. Pyles and D. S. Clark will erect a \$25,000 apartment house to contain 8 apartments at 320 S. W. Tenth Ave.; concrete blocks.

Fla., Vero—Southern Merchantile Hotel Co., Paul Berndt, Pres., Freeman Knight, Vice-pres., Louis Harris, Treas., and J. L. Hutchinson, Secy., has been organized and plans are being prepared by Wm. Manly King of West Palm Beach, for the erection of a \$250,000 hotel to be built on present site of Edgewood Hotel. (Lately noted.)

Ga., Atlanta—Holding Co. of Georgia, Inc., will erect an apartment house on Peachtree St.; cost \$175,000.

Ky., Henderson—George Posey is planning remodeling and enlarging Hotel Kingdon by adding another story of 20 rooms.

Ky., Pineville—The Astor will be erected on site of a frame building recently burned; 66 rooms, of which 18 will have connecting baths; lower floor to be rented to business firms; work to be completed about March 1.

La., Monroe—Guarantee Development Co., Granville Sewell, Mgr., New Orleans, reported to have informed Commissioner H. R. Speed that they would assist financially in constructing proposed \$750,000 hotel in Monroe.

La., Shreveport—Dr. Walter Leabo is having plans prepared for the erection of a 2-story brick veneer apartment house at 2426 Creswell St.; 4 apartments; cost \$25,000.

Md., Baltimore—Wm. H. Parker, managing director of the Hotel Emerson, is having plans prepared by Wm. Gordon Beecher,

Arch't., of Smith, May & Beecher Co., 763 Calvert Bldg., for the erection of a 17-story addition at 118-120 East Baltimore St., cost \$500,000 including site; 150 rooms; frontage of 40 feet and extends to Bank Lane in rear; will also enlarge entrance from Baltimore St. providing access to main dining room; new banquet hall to seat 600 persons and ball room will be located on the roof; new elevators will be installed; to be completed by October, 1924.

Mo., Cassville—R. E. Bruner, Kansas City, will erect a \$100,000 hotel at Roaring River to replace one burned; reinforced concrete and native stone; radio set in each room; garage to house 200 cars; Jas. R. Hoog, Arch't., Kansas City. (Lately noted.)

Mo., St. Louis—Sam Bialock, 39th and Lafayette, will erect a 3-story brick apartment house at 1636 to 42 S. 39th St.; cost \$35,000; 117x53 ft.; composition roof, steam heat; Wademyer & Nelson, Arch'ts., Wainwright Bldg., St. Louis.

Mo., St. Louis—Sam Koplar is reported to be planning the erection of a 15-story apartment house on the southwest corner of Pershing Ave. and Union Blvd. to cost \$2,000,000.

N. C., Winston-Salem—Miss Mary Grogan will erect 16-room apartment house on Trade St. between First and Second Sts.; cost \$10,000.

Okl., Holdenville—A. A. Lawrence has purchased the Methodist Episcopal parsonage and tabernacle on Main St. and will convert into a rooming house.

S. C., Anderson—Chamber of Commerce, Wm. W. Sullivan, Pres., is promoting the erection of a hotel to cost between \$250,000 and \$300,000.

Tenn., Memphis—J. L. and W. E. White purchased tract on Poplar Ave., between McLean St. and Evergreen Blvd., and will erect \$40,000 eight-apartment building and two \$10,000 duplex dwellings at once as first unit of \$1,000,000 development, followed by 10 or 12 additional apartments and later additional dwellings, etc.

Tex., Raymondville—Chamber of Commerce is interested in erection of a 3-story brick hotel to start soon; cost \$65,000. Address Secy.

Va., Charlottesville—Jackson Park Hotel Co. Inc., has been organized with the following officers: J. B. Wood, Pres.; L. T. Hanckel, Jr., first vice-pres.; R. E. Yowell, second vice-pres.; L. L. Irvine, secy. and treas.; and plan erection of a hotel.

W. Va., Martinsburg—New Hotel Holding Co., B. A. Poland, Secy., 426 W. John St., advises Manufacturers Record, "Martinsburg is ready to hear from any concern wanting to furnish capital and build a hotel." (Lately noted.)

Miscellaneous

Ala., Bessemer—Home—The United Charities has purchased home on Sixth Ave. and Eighteenth St., and will remodel into apartments for use as a charity home for old persons; 100x140 ft.

Fla., Palm Beach—Club House—The Palm Beach Yacht Club has purchased a tract of land and plan the erection of a club house to cost \$30,000.

La., New Orleans—Lighthouse—Louisiana Commission for Blind, Baton Rouge, has plans by Emile Weil, Whitney Central Bldg., New Orleans, for building on Camp St.; 1 story; brick and frame.

Miss., Amory—Library—E. D. Gilmore will erect a \$20,000 library building and donate 10,000 books for use of schools of county.

Miss., Canton—Club House—Canton Country Club plans erection of a club house; architect not selected.

Mo., St. Louis—Orphanage—Jewish Orphans' Home, Mrs. A. Shank, Pres. and the Jewish Orphans' Home Men's Club, Marc Burnstein, Pres., has purchased a tract of land on Clayton and Oakland Aves., 707x3117 ft. and propose the erection of an orphanage.

Tex., Dallas—Club House—B. C. Warlick, I. J. Willingham, George O. Wallace, and other Dallas business men have acquired 184 acres on the Fort Worth Pike and plan erection of a \$10,000 club house, also golf links, tennis courts and other recreation facilities.

Tex., Marshall—Recreation Center—C. M. Leary, Supt. of school of First Baptist Church, plans purchasing Rosborough Springs property, near Marshall, and installing improvements including a health and recreation hotel plant to cost about \$100,000.

Tenn., Pulaski—Building—Pulaski Development Co. will receive bids until Dec. 12 for erection and completion of 2-story and basement brick building on First St. near Hemp St.; plans and specifications on file at office at Chamber of Commerce, Pulaski; general conditions of specifications, standard form of American Inst. of Arch'ts.; Jos. D. Weiss, Arch't., 175 Fifth Ave., New York City.

Railway Stations, Sheds, Etc.

Ala., Opelika—Central of Georgia Rwy., W. A. Winburn, Pres., and the Western of Alabama Rwy., Chas. Wickersham, Pres., have had plans prepared for the erection of a union depot to cost about \$100,000.

Mo., Crane—Jos. E. Nelson & Son, 3240 S. Michigan Ave., Chicago, Ill., was not awarded contract to rebuild station for the Missouri Pacific Rwy. Co.

Schools

Ala., Huntsville—City, Fraser L. Adams, will vote Dec. 18 on \$150,000 bonds to erect 2 white grammar schools, one colored grammar school and repairs to present structures. (Lately noted.)

Ala., Tuscaloosa—City Board of Education will erect high school building; 2 stories; brick, trimmed in granite; will contain class rooms, gymnasium, domestic science department and banking room; J. M. Burnett, Supt., wires Manufacturers Record: "Bids will be opened for new high school here latter part of this month, cost of building approximately \$250,000, will be fireproof, D. O. Whildin, Arch't., Birmingham."

Ark., Little Rock—Governor McRae plans the erection of new permanent buildings for the College of Medicine, University of Arkansas.

Ark., Paragould—School Board, T. M. Agee, Pres., plans to erect high school; considering issuing \$150,000 bonds.

Fla., Pine Castle—Board of Public Instruction, Jas. A. Knox, Chmn., will receive bids until Dec. 4 at the office of the Secy. of the Board, Courthouse, Orlando, for the construction of a grammar school building; F. H. Trimble, Arch't., Orlando.

Ga., Barnesville—Gordon Institute Trustees will rebuild Pound Hall noted burned at loss of \$10,000.

Ga., Cedartown—The Methodist Episcopal Church has purchased the Bradford Heights property and plans remodeling and building additional laboratories and class rooms to be used as industrial school for girls.

Ga., Macon—Wesleyan College, Dr. Wm. F. Quillian, Pres., will enter campaign to

raise \$1,000,000 under the leadership of Orville A. Park, National Chmn., to be used for campus improvement on the old Flour-nov estate in the Rivoli district.

Ky., Lexington—Board of City School Commrs. are having plans prepared by Harry Barton, Archt., Greensboro, for the erection of a 12-room grammar school building.

Ky., Paducah—Arcadia Graded School Dist. will vote Dec. 8 on \$20,000 bonds to erect 2-story brick building. Address McCracken County Board of Education.

La., Alexandria—Rapides Parish School Board, W. J. Avery, Secy. and Treas., will erect 3 school buildings to cost \$100,000, \$225,000 and \$660,000; brick and stone, Barrett roof, edge grain yellow pine and concrete floors; steam heat, probably Amer. Rad. Co., electric lights, vaults, wire glass; Favrot & Livaudais, Archts., New Orleans, La. (Lately noted \$1,250,000 bonds voted.)

La., Monroe—Ouachita Parish Board of Education plans the construction of a \$300,000 high school building on Grand St. to be built in three units; first unit a \$100,000 building to be completed by Sept. 1, 1924, and a \$100,000 building the two following years; 3 stories, brick, 20 to 25 rooms.

La., Winnsboro—County School Board, Jno. L. McDuff, Supt., will erect brick school house; Jno. W. Baker, Archt., Crowville, La.

Md., Baltimore—Johns Hopkins University will receive bids until Dec. 5 for erection of School of Hygiene and Public Health at Wolfe and Monument Sts., after plans by Archer & Allen, Central Savings Bank Bldg., Baltimore; cost about \$1,000,000; 9 stories; 180x90 ft.; contractors estimating are: Frainie Bros. & Haigley, 19 W. Franklin St.; Morrow Bros., Fidelity Bldg.; Benj. F. Bennett Building Co., 123 S. Howard St.; M. A. Long Co., Horn Bldg., Guilford Ave and Fayette St.; J. H. Miller, Inc., Eutaw and Franklin Sts.; Consolidated Engineering Co., Calvert Bldg.; Geo. A. Fuller Co., American Bldg.; Henry Smith & Sons Co., 7 E. Redwood St.; Cogswell-Koether Co., 406 Park ave., all of Baltimore; Hegeman-Harris Co., Inc., 185 Madison Ave., New York City. (Previously noted.)

Md., Baltimore—Public Improvement Commission, Ralph C. Sharretts, Secy., purchased 9 acres of land in Overlea for a public school and lot for an addition to school at Curtis Bay; Overlea tract is bounded by Glenmount, Glenmore, Greenfield and Fairview Aves.; Curtis Bay lot fronts 65 ft. on Church St. and 75 ft. on Cherry St.

Md., Baltimore—Public Improvement Commission, Robt. Garrett, Chmn., Garrett Bldg., selected Gilman-Tate tract adjoining Venable Park as site for City College; Dr. Warren Powers, Dean of School of Fine Arts at University of Pennsylvania, Philadelphia, Advisory Archt. (Previously noted.)

Mo., Joplin—Board of Education, Dr. A. B. Clark and others, reported contemplating erection of 20-room ward school for West Central and Byersville School Dist. to cost about \$100,000; Washington School to cost \$75,000, and Columbia School, \$75,000; considering \$300,000 to \$350,000 bond election.

Mo., Naylor—School Board is having plans and specifications prepared by M. J. Laubis, of Poplar Bluff for a new 2-story high school building; bond issue of \$14,000 will be voted on soon for erection of structure.

N. C., Beech—Board of Education of Buncombe County, Frank L. Wells, Secy., Court-house, Asheville, will erect a 4-room, frame school building with auditorium in Beech School District, Reems Creek Township, Bun-

combe County, North Carolina; T. E. Davis, Archt., Asheville, N. C.

N. C., Chapel Hill—University of North Carolina is having plans prepared by Atwood & Nash, Archts., care the University, for the erection of a chemistry building in the southwest corner of the campus; cost about \$400,000.

N. C., Clear Creek—Mecklenburg County School Board, J. M. Mathews, Supt. of schools, Charlotte, will erect a consolidated school near the Norfolk-Southern Railway tracks, adjacent to the Fayetteville Highway.

N. C., Durham—City Mgr. recommended construction of sewer line connecting Forest Hills Development on New Hope Valley road with Wa-Wa-Yanda Development on Chapel

N. C., Lenoir—County School Board plans erecting several schools; first to be built in the Contetnea district embracing Grainger, Sharon and other communities.

N. C., Maiden—City voted \$80,000 school bonds. Address School Board.

S. C., Gaffney—Limestone College, Dr. W. C. Hamrick, Chmn. Building Comm., plans enlarging college by addition of 7 buildings, including fine arts hall, science hall, dormitory, gymnasium, library, president's home and central heating plant; Wilson & Berryman, Archts., Columbia, S. C., and Gastonia and Raleigh, N. C.; E. S. Draper, Landscape Archt., 11 E. Fifth St., Charlotte, N. C., retained for planning re-development of campus.

S. C., Greenville—Furman University, Dr. W. J. McGlothlin, plan erection of Webb Memorial Infirmary and the renovation of Richard Furman Hall.

Tenn., Chattanooga—School Board, Fred B. Frazier, Chmn. Comm., is having new plans prepared by B. H. Hunt & Co., Chattanooga, for the erection of a 10-room addition to the Third District School; cost \$50,000; will include an office, library, teachers' rest room, etc. (Lately noted.)

Tenn., Lebanon—Supt. of Schools will receive bids until Dec. 26 for the erection of fireproof high school; cost \$120,000; reinforced concrete and brick construction; C. K. Colley, Archt., Nashville.

Tenn., Madisonville—Monroe County Court defeated \$260,000 school bonds for improvements at Madisonville, Tellico Plains, Vonore and Sweetwater. (Lately noted.)

Tenn., Memphis—Details under Land Developments.

Tex., Abilene—Abilene Christian College plans the erection of a \$75,000 dormitory.

Tex., Clarksville—City let contract to Mitchell Construction Co., of Houston, to construct sewage disposal plant and sewer lines; cost about \$30,000. (Lately noted.)

Tex., Dallas—City, R. A. Wylie, Street Commr., will let contract Dec. 1 for addition to sewage disposal plant to double capacity of present system; improvements include 12 Imhoff tanks, and probably a sprinkler system; cost approximately \$150,000. (Previously noted voting bonds.)

Tex., Galveston—University of Texas board of regents will expend \$308,000 for the erection of an administration building, museum and heating plant for the medical branch.

Tex., Houston—School Board is having plans prepared by Endress & Cate, Archts., Houston, for the erection of the \$100,000 Hyde Park School.

Tex., Houston—The Sisters of Charity of the Incarnate Word will erect training school for nuns at the southwest corner of the Telephone Cut-Off Road and Wayside Drive; cost \$500,000 (lately noted \$50,000); main building 3 stories, 60x275 ft., with a 60-ft. wing; chapel 150x50 ft.; central heat-

ing and lighting plant; laundry building; construction work will start after Jan. 1; plans by Maurice Sullivan, Archt., Houston. (Lately noted.)

Tex., Jefferson—School Board has purchased old federal court house and will remodel and stucco to be used as a school house.

Tex., Kerrville—City will vote Dec. 18 on \$78,000 bonds for installing sewage disposal plant. (Lately noted as having survey made by Municipal Engineering Co., of Dallas, Tex.)

Tex., Marshall—City school board plans the erection of 2 high schools; architect not selected.

Va., Pulaski—School Board plans to erect building; contemplates election on \$75,000 bonds.

Va., Farmville—State plans to rebuild as soon as possible dormitory at State Normal School lately noted burned.

Va., Lexington—Washington and Lee University, Henry L. Smith, Pres., advises that plans and specifications are now being prepared by Flournoy & Flournoy, Archts., Washington, for erection of chemical laboratory, and will be submitted to contractors for bids in about 10 days; cost \$140,000, 3 stories and basement, 136x100 ft., brick and hollow fireproof tile, concrete floors and foundation, steel sash and trim, ventilators; work will probably start after Jan. 1. (Lately noted.)

Va., Lynchburg—School Board is considering the erection of a 24-room school building and the abandonment of the Biggers and Monroe elementary schools.

Va., Pulaski—Pulaski School Dist. will vote Jan. 15, 1924, on \$75,000 bonds to erect building. Address Dist. School Trustees.

W. Va., Charleston—Wilberforce University will rebuild Shorter Hall, recently destroyed by fire.

W. Va., East Bank—Board of Education of Cabin Creek District, Edward Smith, Secy., will construct a gymnasium; Geo. Hubbs, State Archt., Capitol Bldg., Charleston, W. Va. Bids opened Nov. 23. (Lately noted.)

W. Va., Huntington—Board of Education of the Independent District of Huntington, will receive bids until Nov. 26, for the erection of a grade school on Monroe Ave., between 11th and 12th sts.; cost \$150,000; brick, steel and metal lumber construction; composition over gypsum roofing, rift sawed yellow pine floors, hot air heat. Address Meanor & Handloser, Archts., Professional Bldg., Huntington. (Lately noted.)

W. Va., Huntington—Building Committee of the Board of Education purchased site on Third Ave. between Second and Third Sts. and will erect a school for negro children.

W. Va., Harpers Ferry—State board of control, Jas. S. Lakin, Pres., announces that \$200,000 will be expended for remodeling and erecting 3 new buildings at Storer College; science and lecture hall at \$125,000, a dining hall at \$35,000, a gymnasium at \$20,000 and \$20,000 will be spent for remodeling.

Stores

Ala., Mobile—S. H. Kress & Co. purchased building at 16-18 S. Royal St. and will remodel.

Ark., Fayetteville—Kelly Bros. Lumber Co., Springdale, has purchased site on corner Block and Meadow Sts. and will erect a brick fireproof building; cost about \$20,000; 100x120 ft.

Fla., Miami—A. J. Cushman will erect a 5-story, fireproof building on the southwest corner of W. Flagler St. and Second Ave.,

to be used by American Furniture Co., Col. R. A. Gordan, Pres., Atlanta, Ga.; cost about \$65,000; reinforced concrete with hollow tile curtain walls; plate glass windows.

Ky., Ashland—Ben Williamson & Co. will erect 5-story building on the corner of Sixteenth St. and Greenup Ave.; cost \$150,000; 142x100 ft.; first floor will be company's offices and city salesrooms, others will be stock rooms, packing and shipping departments, etc.; brick and reinforced concrete construction.

La., Shreveport—Thomas and Affie Courtney will erect a 1-story brick store at 602-4-6 Pierre Ave.; cost \$10,500.

Md., Baltimore—Daylight Realty Co. will erect 2 stores and a garage at 1557-1561 North Fulton Ave.; cost about \$10,000.

Mo., Albany—Townsend Wholesale Grocery Co. has been organized with the following officers: G. W. Reed, Pres.; Ed. L. Smith, Vice-Pres.; John Newman, Secy.; J. H. Degginger, Treas.; capital \$25,000; and will erect a store building on southeast corner of the square for their business; 2 stories, 60x100 ft., hollow tile, walls with cement finish. (Lately noted.)

N. C., Asheville—Michalove Grocery Co., Philip Michalove, Pres., will erect a store building on Southside Ave. containing 30,000 sq. ft.; 3 floors and basement; 50x150 ft.; fireproof, brick and steel; work will begin in next few days.

N. C., Charlotte—Charlotte Supply Co., Albert Clark, Pres., is receiving bids for erection of 4-story and basement building at Mint and First Sts. after plans by Lockwood, Greene & Co., Charlotte; 40x147 ft.; brick and steel.

Tenn., Knoxville—Daniel Briscoe Co. will erect a \$150,000 store; 74x140 ft.; 6 stories; mill construction, composition roofing, maple and hardwood flooring, vaults, vault lights, ventilators, steel sash and trim, wire glass; address R. F. Graf & Sons, Knoxville.

Tex., Anson—Barrett Brothers receives bids until Nov. 27 for the erection of 1-story brick store building; cost about \$15,000; 60x110 ft.; Barrett, four-ply tar and gravel roofing, edge grain yellow pine over concrete slab flooring, metal ceilings, David S. Castle Co., Architects, Abilene. (Lately noted.)

Tex., Dallas—Mrs. Mary Bookhout will remodel store front at 1400-02 Elm St.; cost \$10,000.

Tex., Dallas—W. R. Searcy will soon let contract for the erection of a brick arcade and store building; cost \$25,000; triangular

shape, 122-ft. sides, 116 ft. back and 24-ft. front; brick and stucco construction, tar and gravel roofing, cement flooring, gas stoves for heating, electric lights, metal ceilings, plaster board, 2 fireproof metal doors, ornamental terra cotta, steel sash and trim; Flint & Broad, Architects, Andrews Bldg., Dallas. (Lately noted.)

Tex., Houston—C. L. and Theo. Bering sub-leased 7-story building on Preston Ave. from C. H. Hurlock and will establish hardware store; new front will be built and structure remodeled.

Theatres

N. C., Chapel Hill—Carolina Playmakers had plans prepared for the remodeling of the old Law Bldg., to be used as a workshop and theater; plans include a stage with highly specialized lighting devices; seating capacity 336.

N. C., Charlotte—J. H. Cutter is having plans prepared for the erection of a theater on West Trade St. and expects work to begin in near future.

N. C., Gastonia—J. White Ware, J. E. Eskridge, J. E. Simpson and others have organized and are having plans prepared for the erection of a theater; work will start about Jan. 1.

S. C., Greenville—B. T. Whitmire and Associates plan the erection of a theater.

Va., Galax—Rives Brown, Martinsville, Va., will erect a theater; brick, steel and hollow tile construction, built-up roofing, concrete and cement flooring, hot air heating plant, metal ceilings, interior tile, vault lights, ventilators, ornamental terra cotta. Address Eubank & Caldwell, Architects, Roanoke, Va. (Lately noted.)

Warehouses

Ala., Birmingham—The Hood & Wheeler Furniture Co. purchased a site 200x240 ft. on northeast corner of Tenth Ave. and Twenty-first St. north, and plan the erection of a warehouse.

Fla., Jacksonville—Jacksonville Terminal Co. will erect a 1-story shed warehouse, south side Adams between Plum and Peach; cost \$12,000.

Okla., Quapaw—Quapaw Mining Corp., T. F. Lennan, Pres., has begun erection of office and warehouse building on the Springfield lease; office will be 2-stories, 32x42 ft., zinc shingles; warehouse will be 35x100 ft. and have a scale room; 2-story concrete vault accessible from 1st or 2nd floor; shed 35 ft. square will cover shipping platform.

Mo., University City (Branch St. Louis)—Eugene D. & Gilbert T. Connor, Page and Union Sts., will erect \$50,000 store and office building, 6621-23-27 Delmar Blvd., and 603-21-23 Leland Ave.; brick, 3 stories, 75x85 ft., composition roof (tile hood), vacuum steam heat; Hy P. Hess, Archt., 4811 Cote Brilliante; Tobin Construction Co., Contr., 1907 S. Compton St., both St. Louis.

S. C., Spartanburg—Montgomery Building, Inc., V. M. Montgomery, Chmn., Bldg. Comm., let contract to Fiske-Carter Construction Co., Spartanburg, for excavation and foundation work on 10-story store, office and theatre building, Elm and N. Church Sts.; cost about \$850,000; 10,000 sq. ft., exclusive of theatre, steel frame, fireproof, composition roof, concrete and linoleum floors, hollow and interior tile, metal doors, mail chutes, vault lights, ventilators, steel sash and trim, steam heat, conduit system of electric wiring; Lockwood, Greene & Co., Architects, 24 Federal St., Boston, and Spartanburg. (Lately noted.)

Tex., Rotan—First National Bank let contract for erection of addition to building.

Churches

La., New Orleans—Beth Israel Congregation let contract to Chas. Gilbert, New Orleans, for erection of 2-story synagogue at 1616 Carondelet St.; 84x110 ft., steel and brick faced with pressed brick and ornamental cast stone, tile and composition roof; Emile Weil, Archt., Whitney-Central Bldg., New Orleans. (Previously noted.)

Md., Baltimore—Israel Baptist Church No. 2, Colored, let contract to Walter Corbin, 1339 W. Lafayette Ave., Baltimore, for erection of \$12,000 building, 1606-09 Presstman St.; 28 x 60 ft., 1 story, brick and concrete block, concrete foundation; asphalt roof; plans by Mr. Corbin. (Lately noted.)

N. C., Charlotte—Charlotte Evangelistic Assn. let contract to Thies-Smith Co., Charlotte, to erect \$12,000 Billy Sunday tabernacle, S. Tryon and 3rd Sts.; 124x136 ft.; accommodate about 6000; Sibley stoves.

N. C., Durham—Temple Baptist Church, J. T. Christian, Chmn., Bldg. Comm., will erect \$20,000 Sunday school addition after plans by J. Murray Nelson, Durham; 50x60 ft., 2 stories and basement, brick and wood, oak and concrete floors, gravel roof; Thompson & Cannady, Contrs., Durham. Address Mr. Nelson. (Lately noted.)

S. C., Aiken—First Baptist Church is erecting 5-room addition to Sunday school; Byron Hair, Contr., Aiken.

Tex., Smithville—Methodist Episcopal Church let contract to C. F. Peterson, Bastrop, for erection of building; 2 stories; brick and reinforced concrete; cost about \$20,000; P. G. Silber & Co., Architects, 331 Bedell Bldg., San Antonio, Tex. (Previously noted.)

City and County

Tex., Franklin—Courthouse—Robertson County, Joe Reid, County Judge, let contract to Robt Wilson, Waco, Tex., for repairs to courthouse; cost \$53,536; reinforced concrete, metallic finish concrete floors, Texaco Special roof, vaults, ornamental terra cotta, steel sash and trim, wire glass; lighting in general contract; Hill Bros., Waco, contr. for vacuum return system of steam heat; Hix McCannless, Archt., Ennis, Tex. (Lately noted.)

Dwellings

Fla., Miami Beach—Miami Ocean View Co. will erect \$40,000 dwelling on Star Island in addition to \$30,000 dwelling just started and \$35,000 dwelling nearly completed; first to have mahogany and gum wood interior

BUILDING CONTRACTS AWARDED

Association and Fraternal

N. C., Cherryville—Cherryville Lodge-No. 505, A. F. & A. M., is placing material on ground for erection of \$15,000 building, lately noted, under supervision of Jas. L. Beam; 30x100 ft., 2 stories, brick, pine floors, tin roof, metal ceilings, mail chutes, steam heat and electric lights, cost not estimated; no architect; first and part of second floors for business, lodge and dining room on second floor; may use first floor for post office. Address W. J. T. Styers, Chmn., Bldg. Comm.

Va., Lynchburg—Young Men's Christian Assn., J. B. Winfree, Jr., Chmn., Bldg. Comm., let contract to Jos. H. Coleman to remodel adjoining building for boys' dept.; first and second floors for dormitories; Stanhope S. Johnson, Archt., Lynchburg;

plans to erect addition of several stories later. (Previously noted.)

Bank and Office

Ky., Louisville—F. G. Breslin is reported to start construction on \$500,000 Medical Arts building at 3rd St. and Broadway between March 1 and 15; 12 stories, site 95x180 ft.; owner builds.

Mo., St. Louis—L. E. Anderson & Co., 310 N. 8th St., let contract to Jos. G. Hercules, Jr., Wainwright Bldg., St. Louis, for erection of \$60,000 brokerage office building, 711 St. Charles St.; polished red granite facade, fireproof, reinforced concrete construction, concrete floors, vaults, steel sash and trim, wire glass, tar and gravel roof; T. P. Barnett Co., Architects, Arcade Bldg.; D. F. Edwards Heating Co., heating contract; Rick-Chapline Electric Co., electrical work, all St. Louis, excavating. (Lately noted.)

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

trim, second to be 2 stories with 2 screened porches, 2 baths, stone work, tile roof, etc.; Jas. Betteridge & Sons, Contrs., Miami Beach.

Fla., Miami Beach—Carl G. Fisher Properties will erect \$11,000 dwelling, block 1, Prairie Ave., Mid-Golf sub-division; modified Spanish type; 2 stories; garage with servants' quarters in connection; company will also erect additional smaller dwelling; Watson Corp., Contrs., Miami.

Fla., Miami Beach—Watson Corporation, Miami, will erect dwelling in Mid-Golf sub-division.

Md., Baltimore—Harry M. Burns will erect 36 x 27-ft. cottage and 12 x 20-ft. garage at 3507 Grantley Rd.; 2 stories, hollow tile, stone foundation, slate roof, steam heat; J. Winthrop Wolcott, Archt., 725 Lennox St.; J. F. Hardy, Contr., 4200 Groveland Ave., both Baltimore.

Md., Baltimore—Southland Co., 125 E. Baltimore St., will erect 25 dwellings in York Park, Cedarcroft and Cedar Springs Aves.; 6 rooms, bath and pantry, frame, asphalt shingle roof, wood floors, steam and hot water heat, electric lights; total cost \$150,000; J. Elmer Weisheit, Archt.-Contr., Chesapeake & Highland Aves., Towson, Md. (Lately noted in part.)

Md., Baltimore—Louis Farber, 3543 Park Hgts., Ave., has engaged Stanislaus Russell, 11 E. Lexington St., Baltimore, to prepare plans for erection of 5 brick dwellings, S. S. Hilldale Ave., west of Reisterstown Rd.; 2½ stories, 20 x 34 ft.; slag roofs, steam heat; total cost \$15,000; owner builds. (Lately noted.)

Md., Baltimore—John C. Kump, 337 St. Paul Place, will erect 4 frame semi-bungalows, north side Woodland Ave., west of Harford Ave.; 1½ stories, 24x28 ft., concrete and cement block foundations, asbestos shingle roofs, pipeless furnace heat; total cost \$15,000; plans and construction by owner.

Md., Baltimore—John L. Tregallas, 10 E. Fayette St., will erect 2½ story frame dwelling and 2-car garage, north side Northway, east of Norwood Ave.; 36x28 ft., clapboard, hardwood floors, stone foundation, tile porch, 3 baths, wash trays, hot water heat, cost \$11,000; J. W. Hutton, Archt., care W. G. Schaeffer, Contr., 253 Prospect Ave., Baltimore.

Md., Baltimore—Milton R. Lerch, 4337 Harford Rd., will erect 2 shingle cottages on Rueckert Ave., west of Holder Ave.; 2½ stories, 26 x 26 ft., asphalt roofs, hot water heat; Geo. Wessel, Archt., 3001 Lyttleton Rd., Baltimore; owner builds.

Mo., St. Louis—Arrow Realty & Investment Co., 4500 Euclid St., will erect two 2-story tenements, 5108-12 N. Kings Highway; total cost \$16,000; brick, 26x47 ft., composition shingle roofs, hot air heat; Nolte & Nauman, Archts., 614 Fullerton Bldg., St. Louis; owner builds.

Mo., St. Louis—J. H. Schroeder, 3845 Louisiana St., will erect \$10,000 brick tenement house, 4684 S. Grand Blvd.; 2 stories; 34x60 ft., composition roof, steam heat; owner builds.

Mo., St. Louis—P. G. Sturmfels, 3828 Oregon St., will erect six 24x48-ft. tenements, 4215-17-21-25-27-29 Gannett St., and three 27x36-ft. tenements, 4233-37-39 Gannett St.; total cost \$45,000; all brick, 2 stories, composition roofs, warm air heat; plans and construction by owner.

Mo., St. Louis—Henry C. Volkmann, 5481 Claxton St., will erect two 2-story tenements, 5032-40 N. Kings Highway; total cost \$16,000; brick, 26x47 ft., composition shingle roofs, hot air heat; Nolte & Nauman, Archts., 614 Fullerton Bldg., St. Louis; owner builds.

Mo., St. Louis—W. Darr, 1317 Kentucky St., will erect 6 brick tenements, 4617-19-23-31 Minnesota St.; total cost \$43,800; 2 stories, 23x43 ft., gravel roofs, hot air heat; Edwin Lich, Contr., 4562 Fair St., St. Louis.

Mo., St. Louis—H. Koberman, 5654 Gravois St., will erect 7 brick dwellings, 4823-31 Kansas, 5000-04 Louborough, 4300 Gertrude and 3816 Meramec Sts.; 2 stories, all 25x27 ft., composition roofs, furnace heat; S. O. Schumacher, Archt.; A. Koberman, Contr., both 5654 Gravois St.

Mo., St. Louis—C. A. Meredith, 5064 Vernon St., will erect 6 brick dwellings, 6508-14-16-18-20-50 Julian Ave.; total cost \$16,200; 1 story, 24x30 ft., rubberoid shingle roofs, hot air heat; J. M. Vaughn, Contr., 6434 Ridge St., St. Louis.

Mo., St. Louis—E. H. Koch, 1317 Kentucky St., will erect 4 brick tenements, 4622-25-30-32 Minnesota St.; total cost \$29,200; 2 stories, 23x43 ft., gravel roofs, hot air heat; Edwin Lich, Contr., 4562 Fair St., St. Louis.

Mo., St. Louis—Missouri Pressed Brick & Implement Co., 3836 Kosciusko St., will erect \$10,000 tenement house, 3536-38 Oregon St.; brick, 2 stories, 34x61 ft., gravel roof, furnace heat; plans and construction by owner.

Mo., St. Louis—Modern Realty Co., 808 Chestnut St., will erect 3 brick tenements, 3131-30-47 Halliday St.; 34x60 ft., composition roofs; also 2 at 3135-43 Halliday St.; 34x56 ft., tar and gravel roofs; all 2 stories; furnace heat; total cost \$50,000; Oliver J. Popp, Archt., Odd Fellows Bldg.; Jacob Rubin, Contr., 808 Chestnut St., both St. Louis.

Mo., St. Louis—A. H. Rausendorf, 6535A Clayton Rd., will erect 2 two-story tenements, 6539-41 Clayton Rd.; total cost \$12,000, 24x45 ft., tar and gravel roofs, furnace heat, plans and construction by owner.

Mo., St. Louis—C. F. Schirin, 4214 College St., will erect \$10,000 brick residence, 2049 Adelaide St.; 2 stories, 29x39 ft., tile roof, hot water heat; plans and construction by owner.

Mo., University City (Station St. Louis)—A. A. Lortz, 5826 Pershing Ave., and E. L. Jones, 6028 Waterman St., will erect two \$7000 brick dwellings, 6612-16 Pershing Ave.; 2 stories, 25.8x36 ft., slate roofs, hot water heat; L. E. Lortz, Archt.-Contr., Security Bldg., St. Louis.

N. C., Charlotte—Dr. P. M. King let contract to McRee & Foord, Charlotte, for erection of \$20,000 residence; 8 rooms, brick veneer, slate roof, oak floors, vapor heat, electric lights; Louis H. Asbury, Archt., 1212 Realty Bldg., Charlotte. (Lately noted.)

S. C., Langley—Langley Cotton Mills let contract to Minter Homes Co., Greenville, S. C., for erection of 22 dwellings; Lockwood, Greene & Co., Engrs., 24 Federal St., Boston, Mass.

Tex., Austin—Carl M. Mayer let contract to C. W. Moore, Austin, for erection of 1-story residence; total cost about \$10,000; about 30x60 ft., brick veneer over frame, pine and oak floors, wood shingle roof, hot air furnace by J. O. Buas & Son at \$555, plumbing and wiring by John L. Martin at \$696; Edwin C. Kreisle, Archt., Scarbrough Bldg., all Austin. (Lately noted.)

Tex., Cuero—Chas. Cook let contract to H. H. Mayben, San Antonio, for erection of \$19,000 residence; H. Runge & Co., plumbing; Cuero Electric & Power Co., electrical work, both Cuero; Beverley W. Spillman, Archt., San Antonio. (Previously noted.)

Tex., Houston—L. W. Lindsay let contract to W. C. Burschardt, Dallas, to erect \$20,000 residence, 915 Lovett Blvd.; 12 rooms, brick.

Va., Richmond—C. H. Archer will erect 3 dwellings, 208 N. Vine St.; 2 stories, 60x33x25 ft., brick walls and foundations, wood floors, tin roofs, hot water heat; total cost \$16,000; plans and construction by owner.

Va., Richmond—C. H. Ashburn, 2510 W. Main St., will erect 2 dwellings, 2020 Maplewood St.; brick walls and foundations, 2 stories, 40x33x30 ft., wood floors, tin roofs, hot water heat; total cost \$12,000; Davis Bros., Archts.-Contrs., 2510 W. Main St.

Va., Richmond—W. E. Barker, 2510 W. Main St., will erect 4 dwellings, 3305-11 Hanover St.; 2 stories, 22x41x28 ft., brick walls and foundations, wood floors, slate roofs, hot water heat; total cost \$28,000; Davis Bros., Archts.-Contrs., 2510 W. Main St.

Richmond, Va.—Byrd Park Homes Corp., 2216 Rosewood St., will erect 15 dwellings, 2202 Maplewood Ave.; brick walls and foundations, 2 stories, 20x34x24 ft., wood floors, slate roof, hot water heat; total cost \$100,000; plans by owner; Mayo Bros., Contrs., Richmond.

Va., Richmond—O. J. Davis, 2914 Floyd Ave., will erect 2 dwellings, 3141-43 Floyd Ave.; 2 stories, 20x32x32 ft., brick walls and foundations, wood floors, slate roofs, hot water heat; total cost \$10,000; plans and construction by owner.

Va., Richmond—Blair Fitts, 318 W. Franklin St., will erect \$18,000 residence, 3218 Hawthorne Ave.; 2 stories, 44x46x40 ft., brick walls and foundations, wood floors, slate roof, hot water heat; plans by owner; O. C. Peers, Contr., 3200 Hawthorne Ave., Richmond.

Va., Richmond—A. J. Horton, 2929 Garland Ave., will erect 2-story residence, 3035 Montrose St.; cost about \$10,000; brick walls and foundations, 28x43x27 ft., wood floors, slate roof, hot water heat; B. J. Allay, Contr., 3013 W. Clay St., Richmond.

Va., Richmond—C. Phillips, 302 American Nat. Bank Bldg., will erect 5 dwellings, Marshall and Clay Sts.; 30x43x24 ft., 2 stories, brick walls and foundations, wood floors, slag roofs; total cost \$27,500; will also erect three 29x42x24-ft. dwellings of similar construction at 3117-21 W. Leigh St.; total cost \$16,500; owner builds.

Va., Richmond—C. E. Sprengle, 28 N. 5th St., will erect 9 two-story dwellings; brick walls and foundations, six 17x34x20 ft., three 36x56x24 ft., metal roofs, wood floors, total cost \$38,000; plans by owner; Davis Bros., Contrs., 2510 W. Main St., Richmond; will also erect 3 two-story dwellings, north side Clay St., near Altamont St.; total cost \$20,000.

Va., Richmond—H. E. Timbers, 2716 North Ave., will erect 2-story residence, 610 Overbrook Rd.; cinder block walls and foundation; 26x32x30 ft., tile roof, wood floors, hot water heat; cost about \$10,000; plans and construction by owner.

Va., Warrenton—Gen. Jas. A. Buchannon, U. S. A., retired, will erect \$47,000 residence near Warrenton (lately noted) plans by Clarence L. Harding, 729 15th St., N. W., Washington, D. C.; 46x60 ft., tile and stucco, oak floors, hollow tile, asbestos shingle roof, steam heat; E. G. Heflin, Contr., Fredericksburg, Va. (See Mch. Wanted—Building Material.)

Government and State

S. C., Spartanburg—Post Office—Harrison Electric Co., Spartanburg, has contract for electric wiring and fixtures for addition to post office under construction by Garber & C'ssel, Inc., Bethlehem, Pa. (Previously noted.)

Hospitals, Sanitariums, Etc.

Ark., Hot Springs National Park—Ozark Sanatorium Co., Dr. Wm. V. Laws, Pres., let contract to Pottinger Sons & Co., 4321 Keystone St., Chicago, Ill., for erection of 4-story Ozark Sanatorium to replace burned structure; cost \$150,000, fireproof, concrete and steel with rough faced brick exterior; dumb waiters; Wolf, Sexton, Harper & Truex, Archts., 7 W. Madison St., Chicago.

N. C., Durham—Lincoln Hospital, Dr. S. L. Warren, owner, let contract to Consolidated Construction Co., Durham, for erection of \$125,000 hospital building; 140x80 ft., fireproof, concrete, hardwood and sanitary floors, tar and gravel roof, hollow and interior tile, metal ceilings and doors, ventilators, wire glass, vapor system of heat, \$10,000, 2 Otis elevators, \$8000; Milburn-Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C., and Durham. (Lately noted.)

Hotels and Apartments

Ark., Hot Springs—Arlington Hotel Co., W. E. Chester, vice-pres., has awarded contract for 156 tons of structural steel to Virginia Bridge & Iron Co., Roanoke, Va. (Lately noted being built by Ault & Burden, Contrs., Little Rock, Ark.)

Fla., Camp Walton—W. B. Harbeson, Pensacola, awarded contract to C. A. Fulghum, Box 601, Pensacola, to erect 2 new wings and alterations to old building; frame, composition shingle roof, ash and concrete flooring; Walker D. Willis, Archt., Pensacola. Address C. A. Fulghum, Blount Bldg., Pensacola. (Lately noted.)

Ga., Atlanta—E. D. Duncan & Co., awarded contract to Gude & Co., Atlanta, for the erection of an apartment house on Peachtree St.; cost \$550,000; G. Lloyd Preacher & Co., Archts., Augusta.

Ky., Henderson—Community Hotel Co., incorporated with Alex Blair, temporary president, and has retained H. L. Stevens Co., 30 N. Michigan Ave., Chicago, Ill., as architects and builders, to erect \$300,000 hotel. (Lately noted.)

Ky., Louisville—Citizens Hotel Co., W. K. Stewart, Chmn. of Executive Comm., awarded contract to Rommel Bros., Louisville, for the erection of a \$3,000,000 Commercial hotel at Walnut & Fifth Sts.; 124x148 ft.; 18 stories, basement and sub-basement; steel and concrete construction; first 2 stories of stone; 2 upper stories of terra cotta and intervening stories of light colored face brick; 430 rooms with bath; lobby on ground floor and dining room on main floor; banquet rooms on second; ball room on fourth; concrete slab and composition roof; marble, tile and concrete floors; metal doors, mail chutes, ventilators, vaults, vault lights, steel sash and trim, wire glass; Otis high speed electric elevators, \$95,000; heating, lighting and ventilating plant \$168,000; Brinton B. Davis, Archt., Louisville. (Lately noted.)

Mo., Clayton (Ind. branch St. Louis)—West End Realty & Constr. Co., 6229 Delmar, will erect four 6-family apartment houses, 52x45 ft., on Bonita Hi-Pointe Add., and three on San Bonita Hi-Pointe Add.; also 1 apartment, 41x57 ft., on San Bonita Hi-Pointe Add.; cost \$25,000 each; owner builds.

Mo., St. Louis—Crest Investment Co., 721 Chestnut St., awarded contract to Dougherty-Sheehan Real Estate Co., 721 Chestnut St., for the erection of a 3-story apartment house and store building; cost \$150,000; 136-6x57 ft.; brick, steel, concrete and joist construction, composition roofing, oak and

tile, hardwood floors, hollow tile, metal ceilings, marble, interior tile, electric refrigerators, mail chutes, concrete floors, ventilators, incinerator, ornamental terra cotta; plans call for eight 5-room suites of efficiency type, four 4-room suites and six 3-room suites; Thos. J. Sheehan Co., St. Louis, vacuum steam plant, \$11,000; Dorsch Electric Co., St. Louis, lighting plant, \$4200; financed by M. A. Rust & Son Real Estate Co., St. Louis. Address Dougherty-Sheehan Real Estate Co. (Lately noted.)

Mo., University City—Howard W. Godwin, 6227 Delmar Blvd., will erect two 3-story 6-family brick apartment buildings at 6628 and 6632 Washington Ave.; cost \$16,500 each; 32x75 ft. each; tar, gravel and slate roofs; steam heat; owner builds.

Tex., Amarillo—J. N. Green will erect 2-story hotel; cost \$65,000; 70x120 ft.; brick, tar and gravel roof, cement and wood floors, gas heating, hollow tile, metal ceilings, concrete floors, ventilators, wire glass; Smith & Townes, Archt., Blackburn Bldg., Amarillo; bids for plumbing and wiring will be opened Jan. 1; owner will build by day labor. (Lately noted.)

Tex., Dallas—F. E. Hamilton reported to have let contract to Gilsonite Contr. Co., Wainwright Bldg., St. Louis, Mo., for the erection of a \$1,800,000 apartment hotel on Oak Lawn Ave. and Cedar Springs Road; 275x400 ft.; concrete and brick construction; 168 apartments; C. D. Hill & Co., Archts., Dallas.

Va., Richmond—L. M. Chearn, 2510 W. Main, let contract to Davis Bros., 2510 W. Main, for the erection of a 3-story brick apartment house on 10 W. Main; cost \$100,000; 57x153x44 ft.; slag roof, wood floors, steam heat; Davis Bros., Archts.

Miscellaneous

Fla., Tallahassee—Florida College for Women awarded contract to H. H. Brown, Dothan, Ala., for the erection of an addition to the Jennie Murphree Hall. (Lately noted.)

Mo., Clayton (Ind. branch St. Louis)—Sam D. Capen awarded contract to J. H. Wise Constr. Co., Century Bldg., St. Louis, for the erection of a \$15,000 building on Polo Drive, New Country Club; 62x60 ft.; frame.

Railway Stations, Sheds, Etc.

La., Baton Rouge—Illinois Central R. R. System, F. L. Thompson, Ch. Engr., Chicago, Ill., reported have awarded contract for construction new passenger and freight stations here; passenger depot, 380 ft. long, 2 stories high, with waiting room 39x72 ft., rough texture brick finish with Bedford stone columns and trimmings. Freight depot 524 ft. long with platform an additional 143 ft.; 2 stories high for 200 ft. of length, remainder 1 story; brick with slate roof.

Wire from Mr. Thompson states: "Contract for construction Baton Rouge awarded Jos. E. Nelson & Sons, 3240 S. Michigan Ave., Chicago. Contract for heating and plumbing not awarded."

N. C., Selma—Atlantic Coast Line R. R., J. E. Willoughby, Ch. Engr., Wilmington, let contract to W. H. Little, Cordele, Ga., for the erection of a joint passenger station for Atlantic Coast Line and Southern railroads; 30x170 ft., tile and brick veneer construction, asbestos shingle roofing, concrete or tile flooring, conduit lighting plant; W. M. Wiggins, Wilson, N. C., contractor for steam heat plant; A. M. Griffin, Archt., Wilmington, N. C. (Lately noted.)

Schools

Fla., Chattahoochee—Gadsden County School board has awarded contract to W. H. Harrington, Ashford, Ala., for the erection of a school building to serve Chattahoochee and River Junction; cost \$30,000; brick with stone trim, composition roof; 8 class rooms, auditorium, library and teachers' rest room; Mark & Sheftall, Archts., Jacksonville.

Ga., Athens—University of Chattanooga, Dean Ribb, Dr. J. M. Melear, G. F. Lockmiller and Clem Woodward, members of building committee, let contract to B. C. Young, Sweetwater, for the erection of an auditorium and gymnasium at Athens; auditorium will seat 1000, offices for the dean, library, meeting hall; gymnasium will seat 300, will have dressing rooms; contracts let for boiler plant and central heating plant; Manly & Young, Archts., Knoxville, Tenn., also supervising engineers for heating plant.

Mo., Bethany—School Board awarded contract to C. C. Ebby, of Trenton, for the erection of the Bethany high school, contract includes wiring; cost \$50,000; Leo Foley, Kansas City, contractor for plumbing, \$8700; work to start at once.

N. C., Asheville—County Board of Education let contract to L. L. Merchant for the erection of additions to Grace High School; cost \$60,000; 130x60 ft.; 2 stories and basement; brick and hollow tile, steel sash and trim, Barrett built-up roof, wood, cement and mastic flooring; sub contracts not awarded; Smith & Carrier, Archts., Asheville. (Lately noted.)

N. C., Asheville—Buncombe County Board of Education, Frank L. Wells, Secy., awarded contract to Palmer-Spivey Constr. Co., Augusta, Ga., for the erection of (1) 2-story brick building, 10 classrooms and auditorium in Oakley School District, Asheville Township; cost \$39,900; (2) 2-story brick school buildings, 10 classrooms and auditorium, French Broad Consolidated School District, French Broad Township; cost \$39,000; T. E. Davis, Archt., 20½ Spruce St., Asheville. (Lately noted.)

N. C., Lexington—School Board awarded contract to D. K. Cecil's Sons, of Lexington, for the erection of a colored graded and high school building on Pinnix Hall site; cost \$34,782; Harding & Hickman, Greensboro, contractor for heating at \$3740; 8 school rooms and auditorium to seat 400; hollow tile and brick; Harry Barton, Archt., Greensboro.

N. C., Mount Airy—School Board let contract to A. R. Lazenby for the erection of addition to high school building, including 8 class rooms, auditorium, science department and new equipment; J. J. Baldwin, Archt., Anderson, S. C. (Lately noted.)

S. C., Columbia—Woodrow College, University of S. C., has awarded contract to J. T. Dabbs, Columbia, for the erection of the east wing; W. B. Quimarin & Co., contractors for plumbing and heating; Lafaye & Lafaye, Archts., Columbia.

Tenn., Athens—University of Chattanooga, Dean Ribb, Dr. J. M. Melear, G. F. Lockmiller and Clem Woodward, members of building committee, let contract to B. C. Young, Sweetwater, for the erection of an auditorium and gymnasium at Athens; auditorium will seat 1000, offices for the dean, library, meeting hall; gymnasium will seat 300, will have dressing rooms; contracts let for boiler plant and central heating plant; Manly & Young, Archts., Knoxville, Tenn., also supervising engineers for heating plant.

Tex., El Paso—School Board awarded contract to Geo. Baudett, for the erection of a school building in the Durkee Tract, 8

miles east of Dallas; 6 rooms; cost \$21,000; Trost & Trost, Archts., El Paso.

Va., Williamsburg—College of William and Mary, Dr. J. A. C. Chandler, Pres., has awarded contract to J. W. Davis, Newport News, for the erection of a 2-story gymnasium; cost about \$150,000; brick, partly metal joist, terrazzo and wood floors; slate roof, electric lights, heat from central plant; Chas. M. Robinson, Archt., Times-Dispatch Bldg., Richmond. (Lately noted.)

Stores

La., New Orleans—Hannan Shoe Co. awarded contract to Gervais F. Favrot, Canal-Commercial Bldg., for alterations to the former Werner Drug Store at Canal and Bourbon Sts.; cost about \$31,000; work to start first of week; A. D. Seymour, Archt., New York.

Mo., Chillicothe—O. P. Clark will rebuild Henrietta Bldg., recently destroyed by fire; cost from \$50,000 to \$60,000; fireproof; 60x108 ft.; interior tile, concrete floors, ornamental terra cotta, rolling partitions, steel sash and trim, wire glass; R. Warren Roberts, Archt., Chillicothe. Owner builds.

Mo., St. Louis—Ernest Heidland, 5800 Easton St., will erect \$15,000 store and dwelling at 5802 Easton St.; brick, 2 stories, 22x99 ft., tar and gravel roof. Henry Schaumberg, Archt., 3631 Connecticut St.; Ruhaack & Co., Contrs., 2623 Texas St., both St. Louis.

N. C., Wilmington—J. R. Penny Co. is reported to have awarded contract to U. A. Underwood, Wilmington, for the erection of a 2-story building on Front St. for a department store.

Va., Richmond—Granby Building Corp. let contract to Davis Bros., 2510 W. Main St., to erect a brick store on Addison and Shepard Sts.; cost \$10,000; 45x14x15 ft.; slag roof, steam heat, wood floors; plans by owner.

Va., Richmond—F. Perch, 2224 Park Ave., awarded contract to C. H. Archer, Richmond, for the erection of 4 brick stores at 700 N. Shepard St.; cost \$12,000; 62x60x16 ft.; 2 stories; slag roof, wood floors; plans by owner.

Va., Richmond—W. L. Wells, 3011 North Ave., will erect six 1-story brick stores at

Brookland Park and North Ave.; 135x80x17 ft.; slag roof, wood floors; owner builds.

Warehouses

Ky., Hazel—Dark Tobacco Growers' Co-operative Assn. has awarded contract to Jack Cole, Paducah, for the erection of a receiving warehouse.

N. C., Salisbury—Piedmont Bonded Warehouse Corp., E. G. Goodman, will erect 4 fireproof warehouses for cotton storage; 50x120 ft.; construction by owner.

Tex., Houston—Wyers-Spalti Manufacturing Co. awarded contract to the American Constr. Co. for the erection of corrugated iron warehouse at Runnels St. and the I. G. N. railroad tracks; 50x40 ft.

Tex., Houston—Standard Sanitary Manufacturing Co., of Pittsburgh, Pa., awarded contract to Tom Telleppson, for the erection of a 4-story reinforced concrete warehouse at McKinney Ave. and Broadway; cost \$172,500; 41x62 ft.; Alfred C. Finn, Archt., 716½ Main, Houston, Tex.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Barges (Steel).—U. S. Engineer Office, Mobile, Ala.—Bids until Dec. 1 to construct and deliver five steel barges.

Bee Comb Foundation.—New Williams Mill Co., North Wilkesboro, N. C.—To purchase machine for manufacturing "Bee Comb" foundation.

Boat (Steel Hull Maneuver).—U. S. Engineer Office, Huntington, W. Va.—Bids until Dec. 10 to furnish and deliver steel hull maneuver boat, etc. for dam No. 32, Ohio River.

Boiler (Return Tubular).—Hunter Machinery Co. (Mchy. Dealers), Marion, N. C.—\$0 h. p. return tubular boiler, 125 lb. pressure.

Boilers.—Deal Lumber Co., Buhl, Ala.—Prices on five 72x18 high pressure boilers.

Brick and Tile Making Machinery.—Clermont Land Corp., J. Tracy Walker, Treas., Liberty Trust Bldg., Roanoke, Va.—Prices and data on machinery for brick and tile plant.

Bridge.—Collin County, McKinney, Tex. Details under Construction News—Road and Street Construction.

Bridge.—Brazoria County, Angleton, Tex.—Details under Construction News—Road and Street Construction.

Bridge.—Fort Bend County, Richmond, Tex. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—Sumter County Permanent Comm., Sumter, S. C. Details under Construction News—Road and Street Construction.

Bridge.—State Highway Comm., Montgomery, Ala. Details under Construction News—Road and Street Construction.

Building Material.—E. G. Heflin, Fredericksburg, Va.—Building material for \$47,000 residence near Warrenton, Va.

Cars (Dump).—Mills Contractors Equipment Co., Chattanooga, Tenn.—To purchase four 12-yd., all steel, standard gauge, V-shape dump cars; Tennessee delivery.

Cars (Gondola).—Pennsylvania Equipment Co. (Mchy. Dealers) Norwood Station, Pa.—To purchase two second-hand flat bottom steel gondola cars.

Castings.—See Metal Working and Production Machinery.

Cement.—Church of Christ, S. H. Jones, Trustee, Canyon, Tex.—Cement.

Containers (Metal).—University Polish Manufacturing Co., 911 Camp St., Dallas, Tex.—Prices on metal cans for shoe polish.

Crane and Hoist.—Hammer Machine Works, South 6th St., Fort Smith, Ark.—To purchase 10-ton traveling crane and hoist.

Crusher (Gyratory).—R. P. Johnson (Mchy. Dealers), Wytheville, Va.—Dealers price on No. 4 or No. 5 gyratory crusher with capacity of about 400 to 500 tons per day, complete with elevator and screens; second hand, good condition and ready for prompt shipment.

Crusher. (Gyratory or Jaw).—Ellis & Sprinkle, Marion, Va.—To purchase second-hand rock crusher, either jaw or gyratory, capacity 50 to 60 tons per hour, complete and in good condition.

Crusher (Rock).—D. C. Elphinstone, (Mchy. Dealers) 408 Continental Bldg., Baltimore, Md.—One portable rock crusher on wheels, to crush man-size rocks.

Dies.—See Metal Working and Production Machinery.

Dies (Cutting Paper).—I. Wilder, Watertown, Fla.—Prices on dies for cutting paper.

Disinfectant.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Dec. 5 to furnish 1000 gals. disinfectant; delivery to Quantico, Va.; Sch. 243.

Dragline Equipment.—C. A. Tant Construction Co., Marked Tree, Ark.—To purchase used or rebuilt ¾ or 1-yd dragline, crawler type; state price and condition.

Dredging, etc.—U. S. Engineer Office, Room 710 Army Bldg., 39 Whitehall St., New York City.—Bids until Dec. 14 for dredging and rock removal in East River, New York.

Electro Plating Equipment.—Chas. F. Mould, 222 Magnolia Ave., Daytona, Fla.—To purchase electro plating equipment.

Elevator.—Hotel Tygart Corp., W. G. Wilson, Pres., Elkins, W. Va.—Elevator for 6 story hotel.

Elevator (Electric, Freight).—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Dec. 18 to install complete one full magnet electric freight elevator for the U. S. Post Office and Court House, Greenville, S. C.

Engine.—Edgar Lumber Co., Wesson, Ark.—Prices on 20 x 24 slide valve engine.

Equipment (Kitchen and Dining Room).—Hotel Tygart Corp., W. G. Wilson, Pres., Elkins, W. Va.—Kitchen and dining room equipment for 6-story hotel.

Equipment (Post Office).—W. J. T. Styers, Chmn., Bldg. Comm., Cherryville Lodge, No. 505, A. F. & A. M., Cherryville, N. C.—Information on post office equipment.

Filling and Capping Machinery.—Universal Polish Manufacturing Co., 911 Camp St., Dallas, Tex.—Prices on automatic filling and capping machinery.

Flooring (Composition).—Harry Raymond, High Point, N. C.—To purchase composition floor covering, to renew the surface and be dustproof.

Generator.—Carolina Ice Cream Co., Fayetteville, N. C.—In market for 60 k. w. General Electric, 125 volt direct connected current generator, medium speed; give description and price.

Generator (Electric).—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—One 371-2 50 KVA, 3 phase, 60 cycle, 2300 volt, electric generator, 900 to 1200 RPM alternating current; with belted exciter.

Graders.—See Road Building Machinery.

Highway Markers.—Orange County Comrs., Orlando, Fla., will receive bids until Dec. 18 at office of B. M. Robinson, Clk., to erect 17 highway entrance markers or monuments on various highways; plans, etc., from Murry S. King, Archt., Rock Bldg., Orange Ave. and Oak St., Orlando, Fla.

Hoist (Gasoline).—W. W. Abree, Contr., Hudson, N. C.—To purchase 1 to 1½ ton gasoline hoist, chain drive.

Iron Wire.—See Metal Working and Production Machinery.

Jigs.—See Metal Working and Production Machinery.

Lumber.—U. S. Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids opened Nov. 30 to furnish 24,000 B. M. ft. lumber, delivery Quantico, Va.; Sch. 245.

Lumber.—J. H. Carson Co., Charlotte, N. C.—Lumber for dwellings.

Metal Ceiling.—Church of Christ, S. H. Jones, Trustee, Canyon, Tex.—Metal ceiling for basement of church.

Metal Buildings.—The Milton Oil Co., Inc., Eugene H. Milton, Pres., Sedalia, Mo.—Prices on small metal buildings for warehouses and filling stations.

Metal Label Holders.—Burt L. Ownbey & Co., Asheville, N. C.—To correspond with manufacturers of small metal label holders for drawer fronts.

Metal Working and Production Machinery.—Republic Products Corp., 2 East Redwood St., Baltimore, Md.—Prices on small milling machines; punch presses; drill presses; dies; jigs; fixtures; castings; steel; pipe; iron wire, etc.

Milling Machines.—See Metal Working and Production Machinery.

Miscellaneous Supplies.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Dec. 7 to furnish copper wire, radiator boilers, packing sheets, cotter pins, nuts, cap screws, washers, spiral packing, bronze bars, keys, fasteners, curtain and brass tags; delivery to Quantico, Va. Sch. 242.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Dec. 4 to furnish: Power cable; electric welding wire; type writer brackets; ignition batteries; hand-hole plates; emery-wheel dressers; pipe cutters; Stillson wrench parts; monkey wrenches; manure forks; garden hose; spades; chisels; pliers; screw drivers; rubber packing and tracing paper. Blank forms and information (Circular 1575) on application to offices of Panama Canal; Asst. Purchasing Agents at Fort Mason, San Francisco, Cal.

Mixer (Poultry Feed).—Sterling Flour & Grain Co., D. A. Woodward, Sec., Greenwood, S. C.—Second-hand cornmeal and chicken feed mixer.

Moss Gin Machinery.—J. A. F. Hoyt, Box 46, Estherwood, La.—Prices on moss gin machinery complete.

Motor.—Hackley Morrison Co., Inc., (Machinery Dealers) 1708 Lewis St., Richmond, Va.—To purchase 200 to 250 h. p., 3 phase, 60 cycle, 440 volt slip ring motor, 1200 RPM.

Motors (Electric).—General Utilities Co., 304 McKevitt Bldg., Norfolk.

Motors (Electric).—Watson-Fitzgerald Co., Danville, Va.—To purchase one each three h. p., 5 h. p., 20 h. p. and 25 h. p. electric motors, standard make, 1800 R. P. M. 3 phase, 60 cycle, 220 volt.

Paints.—United States Shipping Board, Emergency Corp., L. Van Middlesworth, Mgr., Dept. of Purchases, Washington, D. C.—Bids until Dec. 5 to furnish for six months, beginning Jan. 1, bottom paints in quantities as required at ports of Boston, Philadelphia, Baltimore, Norfolk, Newport News, Charleston, S. C., Jacksonville, Pensacola, Mobile, Galveston and New Orleans, La.

Paper (Oiled), etc.—I. Wilder, Watertown, Fla.—Prices on fine quality oiled paper and oiled paper envelopes.

Paving.—City of Dallas, Tex.—Details under Construction News—Road and Street Construction.

Paving.—City of Shreveport, La. Details under Construction News—Road and Street Construction.

Paving.—City of Tuscaloosa, Ala. Details under Construction News—Road and Street Construction.

Paving.—City of Ennis, Tex., G. C. Sanderson, City Sec. Details under Construction News—Road and Street Construction.

Paving.—City of Lakeland, Fla. Details

under Construction News—Road and Street Construction.

Paving, etc.—City of Miami, Fla. Details under Construction News—Road and Street Construction.

Paving Materials.—Chas. Carroll Brown, City Engr., 229 Hartsell Bldg., Lakeland, Fla.—Data and prices on paving materials, including asphalt, brick, cement, sand, slag, stone, road oil and road binders.

Paving Materials.—C. L. Hasie, Engr., Box 168, Memphis, Tex.—Prices on paving materials, including asphalt, brick, cement, sand, stone, road binders.

Paving Reinforcing (Concrete).—C. L. Hasie, Engr., Box 168, Memphis, Tex.—Prices on concrete paving reinforcing.

Pedals (Foot).—See Wooden Toy Supplies.

Quilting Machinery.—See Shirt Plant Machinery, etc.

Planer.—Lancaster Iron Works, Inc., Lancaster, Pa.—To purchase one open side planer, 48x48-in. x 12-ft. long.

Planer (Wood).—D. C. Elphinstone, (Mch. Dealers) 408 Continental Bldg., Baltimore, Md.—One 8 or 10 x 24-in. wood planer drive both sides.

Plaster Board.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Dec. 3 to furnish 100,000 sq. ft. of plaster board; delivery to Quantico, Va. Sch. 236.

Press (Wheel).—Hammer Machine Works, South 6th St., Fort Smith, Ark.—To purchase 200-ton hydraulic wheel press.

Presses (Punch and Drill).—See Metal Working and Production Machinery.

Pumps.—The Milton Oil Co., Inc., Eugene H. Milton, Pres., Sedalia, Mo.—Prices on pumps for filling stations.

Radio Material and Supplies.—The Inter-Southern Radio Corp., 208 East High St., Jefferson City, Mo.—Prices on material and supplies with machinery to manufacture radio parts and outfits.

Radio Supplies.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Nov. 30 to furnish sulphuric acid, batteries, fuses, rubber gloves and vacuum tubes; delivery to Quantico, Va. Sch. 239.

Retinning Machinery.—E. E. Gainer, 709 East 8th St., Oklahoma City, Okla.—To correspond with manufacturers of machinery for the retinning of ice-cream containers.

Road.—Collin County, McKinney, Tex. Details under Construction News—Road and Street Construction.

Road.—Lavaca County, Hallettsville, Tex. Details under Construction News—Road and Street Construction.

Road.—Hinds County, Jackson, Miss., will improve 3 roads. Details under Construction News—Road and Street Construction.

Road.—Sumter County Permanent Road Comn., Sumter, S. C. Details under Construction News—Road and Street Construction.

Road.—Brazoria County, Angleton, Tex., will build 2 roads. Details under Construction News—Road and Street Construction.

Road.—Rusk County, Henderson, Tex. Details under Construction News—Road and Street Construction.

Road.—Nueces County, Corpus Christi, Tex. Details under Construction News—Road and Street Construction.

Road Binders.—See Paving Materials.

Road Oil.—See Paving Materials.

Road.—State Highway Comn., Montgomery, Ala. Details under Construction News—Road and Street Construction.

Road.—Aiken County, Aiken, S. C. Details under Construction News—Road and Street Construction.

Road.—Berkeley County, Moncks Corner, S. C. Details under Construction News—Road and Street Construction.

Road Building Equipment.—State Highway Dept., Eastpoint, Ga.—Bids until Dec. 14 for following equipment; twenty eight 8 ft. road graders; nine 10-ft. graders; six 12-ft. graders; all equal to Adams, Russell, Stockland or better; forty-four 1 ton trucks with gravity dump bodies, all equal to Ford 1 ton truck equipped with Perry Martia dump bodies or better; twenty back slopers for 10-ft. graders; 15 back slopers for 12-ft. graders; 16 scarifier attachments for 12-ft. graders all equal to Adams, Russell, Stockland or better; twenty-five 2 ton tractors equal to Holt, T-35 or model W Cletrac, or better; twenty-five 5 ton tractors equal to Best or Holt or better; sixty 7 ft. 3 blade road drags equal to Adams or Russell or better; 20 complete circles with blade for maintainer equal to Adams or Russell or better. State prices f.o.b. the following places: Atlanta, Ga.; Macon, Ga.; Augusta, Ga.; Albany, Ga.; Savannah and Waycross, Ga.; W. R. Neal, State Highway Engr.

Roofing (Iron or Zinc).—Mrs. E. T. Hoyt, Box 15, Estherwood, La.—Iron or zinc roofing to put over shingle roof on dwelling; state price per square.

Roofing.—Newton Ice & Fuel Co., Newton, N. C.—To purchase roof about 8 to 10 squares flat surface, 10 to 12 ft. wide with a pitch of four inches, want same covered with a guaranteed waterproof room.

Roof and Tower Repairs.—Duval County Board of Commrs., R. H. Carswell, Chmn., Jacksonville, Fla.—Bids until Dec. 3 for repairing roof and tower of original section of courthouse; specifications on file at office Frank Brown, Clk., Room 101, Courthouse.

Safe.—Bank of Commerce, J. C. Covington, Pres., Clio, S. C.—Small time lock safe.

Saw Mill.—Edgar Lumber Co., Wesson, Ark.—Prices on 35,000 ft. capacity saw mill.

Self Propelling Nozzle.—J. H. Geagan, P. A., Atlantic Coast Lumber Corporation, Georgetown, S. C.—To purchase self-propelling nozzle with root cutting attachment designed for use in cleaning sewers and drains.

Sewer.—City of Miami, Fla. Details under Construction News—Road and Street Construction.

Sewer Construction.—City of Baltimore, Md. Details under Construction News—Sewer Construction.

Sewer Construction.—City of Jacksonville, Fla. Details under Construction News—Sewer Construction.

Sewer Construction.—City of Norfolk, Va. Details under Construction News—Sewer Construction.

Sewer Construction.—City of Columbus, Ga. Details under Construction News—Sewer Construction.

Shirt Plant Machinery, etc.—Georgia Products Co., Fort Gaines, Ga.—To purchase machinery for shirt factory, also quilting machinery; correspond with manufacturers or dealers.

Springs (Wire Coil).—Graniteville Manufacturing Co., Coles Phinizy, Treas., Graniteville, S. C.—To correspond with manufacturers of wire coil springs.

Sprinkler System.—W. L. Martin Broom

& Mop Co., E. E. Kinble, Sec., 1010 S. Preston St., Louisville, Ky.—Prices on sprinkler system.

Steel.—See Metal Working and Production Machinery.

Steel Jail Gages.—Harold S. Brown, Clerk of Town of Forest Park, P. O. Plant City, Fla.—To correspond with manufacturers of steel jail gages.

Stone.—See Paving Materials.

Tanks.—The Milton Oil Co., Inc., Eugene H. Milton, Pres., Sedalia, Mo.—Prices on underground storage tanks for station also bulk storage tank.

Tanks (Steel).—Wilson-Hock Co. (Machy. Dealers) City Point, Va.—Dealers prices on two steel tanks, 60,000 gal. each, equipped with agitators; Virginia delivery.

Tenon Machine.—Art Frame Works, Statesville, N. C.—Single ended tenon machine, second-hand equipment.

Tile Plant Machinery.—See Brick and Tile Making Machinery.

Tin (Block) and Antimony.—E. E. Gainer, 709 East 8th St., Oklahoma City, Okla.—To purchase block tin and antimony in small lots of less than a ton at a time.

Tractors.—See Road Building Equipment.

Trucks.—See Road Building Machinery.

Water Works.—City of Elizabethtown, Ky.—Details under Construction News—Water Works.

Wheels (Ball Bearing).—See Wooden Toy Supplies.

Wooden Toy Plant.—3655 N. Smedley St., Philadelphia, Pa.—Manufacturer seeking lo-

Wooden Toy Supplies.—H. E. Hymel, 602 N. Cortez St., care of Am. Can Co., New Orleans, La.—Data and prices on supplies, including foot pedals for various styles of cycles, small steel disc ball bearing wheels for the manufacture of toys such as push carts, etc.

Woodworking Machine.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Dec. 7 to furnish one woodworking machine, delivery Paris Island, Port Royal, S. C.; Sch. 244.

Woodworking Machinery.—R. G. Cox, Supt., S. & A. Ry., Savannah, Ga.—To purchase machinery to manufacture cross arm stock, including gang boring machine and machine to chamfer the edges.

incorporated by Israel Herman, Sam. J. Epstein and others.

Md., Baltimore—Dixie Building & Loan Assn., Inc., 110 N. Howard St., \$250,000 capital, incorporated by Harry Lieberman, Louis Sachs, Karl R. Kahn and Samuel L. Joseph.

Md., Baltimore—Laura Building Assn., 76 Gunther Bldg., capital \$300,000, incorporated by Walter S. Ritter, Paul B. Koons and Louis Rath.

Miss., Bovina—Investment & Securities Co., capital \$20,000, incorporated by B. Davis, Sol Felner and Jos. H. Short, all of Vicksburg.

Miss., Centreville—Farmers' Exchange Bank of Centreville, capital \$20,000, incorporated by Lynn Dinkens and E. S. Doodin, New Orleans, E. B. Robinson, H. S. Archer and others, Centreville.

Mo., St. Louis—A. C. F. Meyer, Pres., Lafayette-South Side Bank, C. W. Johnson, Prest. St. Louis Basket & Box Co., and others are organizing national bank with \$250,000 capital.

Mo., Union—People's Bank of Union, capital \$16,000, incorporated by J. L. Walker, A. F. Borberg, Arthur Gerg and others.

N. C., Raleigh—North Carolina Agricultural Credit Corporation, capital \$2,000,000, incorporated with Jno. H. Boushall, Pres.; Geo. A. Norwood, V.-P.; A. E. Bing, Sec.-Treas. (Lately noted.)

N. C., Winston-Salem—Winston-Salem Title Abstract Co., capital \$100,000, organized with S. G. Ogburn, Pres., Winston-Salem; Geo. U. Baucom, Jr., V.-P., Raleigh; Luther Ferrell, Sec.-Treas., Winston-Salem.

Okla., Tulsa—Group No. 1 of Oklahoma League of Building and Loan Assns. organized with L. W. Pollack, Sec., Home Building & Loan Assn., Pres.; J. M. Reed, Sec. Home Building & Loan Assn., V.-P.; J. L. Kaufman, Sec., Nowata Building & Loan Assn., Sec.-Treas.

S. C., Great Falls—Jno. R. Shirley, Rock Hill, is organizing bank to be located at Elizabeth Heights.

Tex., Houston—Warde Securities Co. is promoting organization of Houston Labor Bank & Trust Co. with \$100,000 capital.

W. Va., Bluefield—Acceptance Corporation of America, capital \$1,000,000, incorporated by H. A. Moss, W. W. Tinder, L. L. Lively and others.

W. Va., Bluefield—Empire Investment Co., capital \$25,000, incorporated by H. A. Moss, R. C. Berry, C. M. Adcock and others.

New Securities

Ala., Birmingham—Fire Station—City contemplates election on \$150,000 bonds. Address The Mayor.

Ala., Huntsville—School—City, Fraser L. Adams, will vote Dec. 18 on \$150,000 bonds. (Lately noted.)

Ala., Selma—Street—City, Wm. B. Hall, Mayor, will sell \$42,000 bonds.

Ark., Harrisburg—Drainage—Poinsett County Drainage Dist. No. 1, sold to Marine Bank & Trust Co., and Moore, Hyams & Co., Inc., both New Orleans, \$662,000, 5½%, \$500 and \$1000 denom. bonds.

Ark., Paragould—School—School Board, T. M. Agee, Pres., plans to issue \$150,000 bonds.

Ark., Russellville—Warrants—Pope County sold \$48,000 obligation warrants to J. L. Arlitt, Austin.

Fla., Brooksville—Road—Hernando County will vote on \$450,000 bonds. Address County Commrs.

Fla., Arcadia—Jail, etc.—DeSoto County Comsn. is considering calling election on bonds to erect jail and refund \$60,000 warrants.

Fla., Bushnell—School—Sumter County Board of Public Instruction, W. T. Eddins, Sec., will receive bids until Jan. 1, 1924, for \$25,000 6% bonds; \$1000 denom.

Fla., Daytona—Municipal Improvement—City, L. E. Hough, Clk., will receive separate bids until Dec. 15 for following 5% \$1000 denom. bonds: \$260,000 water front park; \$200,000, paving and drainage; \$100,000, sanitary sewer system; \$100,000 water-work improvement and extension; \$10,000, fire station building.

Fla., Daytona Beach—School—County Board of Education, Geo. W. Marks, Supt., DeLand, will advertise for \$70,000 bonds to erect school on Lenox Ave.

Fla., Fort Lauderdale—School—Broward County Board of Public Instruction sold \$6000 6% bonds of Special Tax School Dist. No. 2 to First National Bank, Fort Lauderdale, at \$6000 and accrued interest. (Lately noted.)

Fla., Fort Pierce—School—Fort Pierce Special Tax School Dist. voted \$130,000 high school bonds; G. B. Sawyers Co., Jacksonville, will advertise bonds; date of sale decided Nov. 20; E. E. Smith, Co. Supt. of Education. (Lately noted.)

Fla., LaBelle—Municipal Improvement—City will vote on \$25,000 bonds. Address The Mayor.

Fla., Lakeland—Municipal Improvement—City, J. L. Davis, Clk., sold \$450,000 light and water extension bonds to R. M. Grant & Co., Inc., A. C. Allyn & Co. and H. D. Fellows Co., all New York, jointly at 106.40; \$25,000 library bonds to G. B. Sawyer & Co., Jacksonville, Fla., at 106.62. (Lately noted.)

Fla., Miami—School—Superintendent of Board of Public Instruction will receive bids until Dec. 3 on \$25,000 bonds for Dade County Special Tax School Dist. No. 5.

Fla., Milton—School—Santa Rosa County R. H. Hobbs, Supt., will receive bids until Dec. 4 on \$15,000 bonds for Munson School Dist. (Lately noted.)

Fla., Orlando—Road—Orange County Commrs., B. M. Robinson, Clk., sold \$397,000 5½% bonds to Otto Marx, Birmingham, Ala., at 100.45. (Lately noted.)

Fla., Sarasota—Road—Sarasota County will vote on \$15,000 bonds. Address County Commrs.

Fla., Sanford—Park and Sewerage—City, L. R. Phillips, Clk., will receive bids until Dec. 12 on \$160,000 5½% bonds. (Lately noted.)

Fla., Wauchula—Road—Hardee County will vote Dec. 18 on \$350,000 bonds. (Lately noted.)

Fla., West Palm Beach—School—Palm Beach County sold to Bank of Lake Worth two issues of 6% bonds as follows: \$20,000 Special Tax School Dist., No. 4 at premium of \$825; \$15,000 Special Tax School Dist., No. 9, at premium of \$315. (Lately noted.)

Ky., Carrollton—Road and Bridge—Carroll County sold \$51,000 5% bonds to Seaboard & Mayer, Cincinnati, at 96.51.

Ky., Louisville—Hospital—City sold \$750,000 tuberculosis hospital bonds to Henning, Chambers & Co., and Fidelity Trust Co., Louisville, at 102.92.

Ky., Paducah—School—Arcadia Graded School Dist. will vote Dec. 8 on \$20,000 bonds. Address McCracken County Board of Education.

Financial News

New Financial Corporations

Ala., Cordova—Citizens Bank & Trust Co., capital \$25,000, incorporated with M. Aaron, Pres.; G. H. Stewart, Cash.

Ala., Monroeville—Dealers Auto Credit Co., capital \$20,000, incorporated by L. W. Locklin, A. J. Locklin, C. R. Locklin and others.

Fla., Miami—Davenport & Rich Mortgage Co., capital \$300,000, incorporated with Thos. S. Davenport, Pres.; E. J. Davenport, V.-P.; Thos. W. Rich, Sec.-Treas.

Ky., Ashland—Ashland National Securities Co. is being organized by Jno. E. Buckingham, Pres., Ashland National Bank, with \$80,000 capital.

Md., Baltimore—Harding Building & Loan Assn., 110 E. Lexington St., capital \$250,000,

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

La., Amite—School—Kentwood Bank purchased \$12,000 Tangipahoa Parish School Dist. No. 15 bonds at par and accrued interest. (Lately noted.)

La., Bastrop—Highway—Morehouse Parish Police Jury will issue \$757,000 bonds of Road Dist. No. 2.

La., Bastrop—Highway—Morehouse Parish Police Jury sold \$1,150,000 bonds.

La., Columbia—Indebtedness—City, R. M. Irwin, Mayor, will sell \$14,500 bonds.

La., De Ridder—Road and Bridge—Beauregard Parish sold \$125,000 6%, \$1000 denom. bonds to J. L. Arlitt, Austin, Tex.

La., New Iberia—School—Iberia Parish School Board sold \$150,000 bonds of Jeanerette School Dist. to J. C. Barry, Lafayette, at par and accrued interest.

La., New Iberia—Drainage—Petite Anse Coteau Drainage Dist. Trustees sold \$75,000 6% bonds to Sutherlin-Barry, New Orleans, at premium of \$1180. (Lately noted.)

La., New Iberia—Road—Iberia Parish, Sub-Road Dist. No. 1, of Road Dist. No. 7, will receive bids until Dec. 3 for \$100,000, 6%, \$1000 denomination bonds; Lionel Delcambre, Sec. of Police Jury.

La., Welsh—Electric Light—Sutherlin, Barry & Co., and Whitney-Central Trust & Savings Bank, New Orleans, purchased \$20,000 bonds at par plus premium of \$195.

La., Winnsboro—School—Franklin County Board of Education will receive bids until Jan. 4, 1924, on \$40,000 5 per cent bonds; \$500 denom. (Lately noted.)

Miss., Biloxi—Municipal Improvement—City voted \$200,000 bonds including \$110,000 for 3 schools, \$90,000 for improvement of streets and beach protection; Jno. J. Kennedy, Mayor. (Lately noted.)

Mo., Carthage—School—Carthage School Dist., Nora Johnson, Clk., sold \$46,000 refunding bonds.

Mo., Clayton—School—Friedman, D'Oench & Duhme, St. Louis, Mo., have purchased \$25,000, 5½%, \$1000 denom. Ritenour Consolidated School Dist. bonds.

Mo., Kennett—Sewer and Water—City, D. Strand, Clk., sold \$25,000 bonds to National City Bank, St. Louis.

Mo., St. Louis—Waterworks—Board of Estimates and Apportionment authorized issuance and sale of \$2,000,000 bonds, Feb. 1, 1924; probably sell \$2,500,000 in June and \$6,000,000 in September; E. E. Wall, Water Commr.

N. C., Asheville—Road, Bridge and Courthouse—Buncombe County sold \$450,000 bonds to Continental & Commercial Trust and Savings Bank, Chicago, and Guaranty Co., New York; \$200,000 bonds for roads and bridges sold at \$201,143 and \$250,000 bonds for courthouse annex sold at \$251,426.

N. C., Asheville—School—Buncombe County Board of Education, F. L. Wells, Sec., will receive bids until Dec. 10 for \$60,000 5½ or 6% bonds for Sand Hill Consolidated School Dist.; \$1000 denom.

N. C., Asheville—School—Buncombe County Board of Public Instruction, F. L. Wells, Supt., will receive bids until Dec. 3 for \$40,000 Venable Special Tax School Dist. bonds.

N. C., Boone—School Funding—Watauga County Commrs., E. M. Harman, Clk., will receive bids until Dec. 3 on \$18,000 5½ per cent bonds; \$1000 denom.

N. C., Durham—Municipal Improvement—City, C. B. Alston, Clk., authorized issuance of \$50,000 bonds for roads, streets, highways and sidewalks.

N. C., Durham—Durham County Commrs., M. G. Markham, Clk., called election Dec. 18 on \$30,000 bonds in Bethesda Special Tax School Dist.

N. C., Elkin—Municipal Improvement—Surrey County sold \$80,000 street improvement and \$100,000 water and sewer bonds to Title Guarantee & Trust Co., Cincinnati, O., at 100.03.

N. C., Fairview—School—Buncombe County Board of Education, F. L. Wells, Sec., Asheville, will receive bids until Dec. 3 for \$50,000 bonds of Fairview Township Special School Tax Dist.

N. C., Garner—School—Garner Tax School Dist. No. 1 will vote Dec. 24 on \$18,000 bonds; Wm. H. Penney, Clk.

N. C., Goldsboro—Water—City Sinking Fund Commrs. purchased \$60,000 4½% water bonds at par and premium of \$876.

N. C., Greensboro—School—City will sell \$500,000 bonds. Address The Mayor.

N. C., Lexington—Street, Water and Sewer—Town, Paul R. Raper, Clk., sold \$100,000 street improvement and \$175,000 water and sewer bonds to Wachovia Bank & Trust Co., Winston-Salem. (Lately noted.)

N. C., Raleigh—Notes—Wake County sold \$50,000 funding notes to Durfey & Marr, Raleigh, for 100.40.

N. C., Reidsville—Street, Water-Works—City will receive bids until Dec. 4 for following 5, 5½ or 5¾%, \$1000 denom. bonds; \$95,000 street improvement; \$30,000 water extension; E. B. Ware, City Clk.

N. C., Statesville—Municipal Improvement—City, Jno. L. Milholland, City Clk. and Treas., will receive bids Dec. 1 for following bonds: \$150,000 for local improvement, \$75,000 for assessment and \$75,000 for water-works.

N. C., Maiden—School—City voted \$80,000 school bonds. Address The Mayor.

N. C., Mebane—Street—Town, M. Alice Fowler, Clk., will receive bids until Dec. 4 for \$25,000 bonds; \$1000 denom.

Okla., Devol—Waterworks—Town sold \$50,000 6%, \$1000 denom. bonds to J. L. Arlitt, Austin, Tex.

Okla., Oklahoma City—Municipal Improvement—City and Oklahoma County will vote Nov. 30 on \$1,850,000 bonds to include \$1,600,000 for repairs to city reservoir and dam and \$250,000 for viaduct and street repairs; O. A. Carghill, Mayor. (Lately noted.)

Okla., Sayre—Municipal Improvement—City sold \$14,500 city hall, \$15,500 water and \$5000 fire truck bonds. Address The Mayor.

Okla., Sayre—Bridge and Road—Beckham County will vote Dec. 20 on \$300,000 bonds. Address County Commrs.

Okla., Tulsa—Sewer and Park—City, H. F. Newblock, Mayor, voted \$800,000 sewer and \$150,000 park extension and improvement bonds. (Lately noted.)

Okla., Tulsa—Water—City, H. F. Newblock, Mayor, sold \$2,800,000 5½ per cent bonds to A. J. McMahon, Oklahoma City, at par, accrued interest and premium of \$15,000.

Okla., Wewoka—Bridge—Seminole County contemplates election on bonds to build hard-surfaced roads throughout county. Address County Commrs.

S. C., Bennettsville—Street Improvement—City, L. C. McArthur, Clk., sold \$100,000 5½% bonds to Union Savings Bank of Bennettsville, at 100.107. (Lately noted.)

S. C., Hartsville—Water and Sewerage—City plans to vote on \$100,000 bonds including \$86,000 for enlarging and extending

waterworks and \$14,000 for enlarging sewerage system. Address The Mayor.

S. C., Newberry—Water—City will vote Dec. 11 on \$125,000 bonds. Address The Mayor.

S. C., Sumter—Road and Bridge—Sumter County sold \$500,000 5% bonds to J. G. White & Co., Inc., and P. F. Cusick & Co., both New York, at 98.27.

S. C., Union—Highway—Union County, J. V. Askew, Chmn., sold \$60,000 bonds of Bogansville Township to Hanchett Bond Co., Inc., Chicago, at 100.33. (Lately noted.)

Tenn., Knoxville—Indebtedness—City, Frederick A. Ault, Recorder, will receive bids until Dec. 4 for \$2,750,000 4% bonds for municipal improvements.

Tenn., Knoxville—Refunding—City, Mayor Ben A. Morton, plans to float \$3,500,000 bonds early in December.

Tenn., Lenoir City—School—City sold \$40,000 bonds to People's Bank, Lenoir City, at \$41,250 and accrued interest. (Lately noted.)

Tenn., McKenzie—Sewer—City, H. C. Bryant, Clk., will receive bids until Dec. 5 for \$85,000 sanitary sewer improvement bonds.

Tenn., Union City—Sewer and Electric—City, W. D. Keiser, Recorder, will receive bids until Dec. 4 for \$125,000 5½% bonds. (Lately noted.)

Tex., Abilene—Road—Stacy & Braun, Toledo, Ohio, purchased \$350,000, 5½% bonds, at 103.21.

Tex., Abilene—Road—Taylor County, Merkel Road Dist., sold \$350,000 bonds to Bregg, Garrett & Co., Fort Worth, at par, accrued interest and premium of \$11,235. (Lately noted.)

Tex., Beaumont—Hospital—Jefferson County, B. R. Johnson, Judge, sold \$50,000 hospital bonds.

Tex., Brownsville—Road and Highway—Cameron County, O. C. Dancy, Judge, will vote on \$660,000 bonds.

Tex., Colorado—Highway—Mitchell County is reported contemplating voting about Dec. 15 on \$650,000 bonds. Address County Commrs.

Tex., Dallas—Water—City, Jno. C. Harris, Mayor pro tem, plans to sell \$1,000,000 bonds.

Tex., Decatur—Highway—Wise County Commrs. Court voted \$75,000 bonds; S. M. Ward, County Judge. (Lately noted.)

Tex., El Paso—Road—El Paso County voted \$1,260,000 bonds; E. B. McClintock, County Judge. (Lately noted.)

Tex., Greenville—Street and Water—City will receive bids until Dec. 4 for \$100,000 5% street improvement and \$5000 6% water-works bonds. Address The Mayor.

Tex., Hereford—Hospital—Deaf Smith County, W. M. Megert, Judge, will vote Dec. 20 on \$50,000 bonds.

Tex., Hillsboro—Paving—Improvement Dist. No. 1 will vote Dec. 11 on \$15,000 bonds; W. P. Alderson, Mayor.

Tex., Houston—Municipal Improvement—Dunn & Carr, Houston, purchased \$125,000 bonds for improvements in Park Place, W. N. Pearson, Mayor; improvements include \$5000 city hall and fire station, \$100,000 for sewerage disposal plant and sewers, \$20,000 for street paving.

Tex., Kerrville—Sewerage—City will vote Dec. 18 on \$78,000 bonds. Address The Mayor.

Tex., Linden—Road—Cass County, Sam L. Henderson, Judge, will vote Dec. 18 on \$1,500,000 bonds. (Lately noted.)

Tex., Lubbock—Municipal Improvement—City voted \$500,000 bonds, including \$360,000

for paving and storm sewers; \$15,000 for water works; \$50,000 for electrical engines and extensions to power plant; \$75,000 for city hall and fire station; \$25,000 for white way; J. R. Germany, City Sec. (Lately noted.)

Tex., Rockwall—Road—Rockwall County, J. W. Reese, Judge, will receive bids until Dec. 3 for \$156,500 5½% bonds.

Tex., Rusk—School—S. R. Fuller purchased \$65,000 Rusk Independent School bonds at par and accrued interest.

Tex., Sonora—Road—Sutton County, J. D. Lowery, Clk., sold \$200,000 5½%, \$1000 denom. bonds to H. D. Crosby & Co., Dallas, at par and accrued interest; will issue and sell \$100,000 some time next year. (Lately noted.)

Va., Farmville—Municipal Improvement—Town, E. S. Shields, Chmn., Finance Comm., will receive bids until Dec. 11 on \$50,000 electric and \$50,000 street improvement 5% bonds; \$1000 denom.; additional information at office H. B. Warriner, Town Treas.

Va., Pulaski—School—Pulaski School Dist. will vote Jan. 15, 1924, on \$75,000 bonds. Address Dist. School Trustees.

W. Va., Follansbee—Municipal Building—City, L. A. Diller, Mayor, will vote Dec. 18 on \$60,000 bonds. (Lately noted.)

W. Va., Huntington—School—City sold \$100,000 bonds to Kanawha Banking & Trust Co., Charleston, and Bankers Trust Co., New York, at par, accrued interest and \$4579 premium.

W. Va., Logan—Road—Logan County sold \$300,000 5 per cent bonds to Kanawha Banking & Trust Co., Charleston, and Bankers' Trust Co., York, at par, accrued interest and \$2337 premium.

Financial Notes

American Exchange Bank, Sayre, Okla., capital \$25,000, converted into American National Bank of Sayre.

Bank of Refugio, Refugio, Tex., capital \$100,000, converted into First National Bank of Refugio; J. M. O'Brien, Pres.; B. A. Johnson, Cash.

Citizens Bank of Llano, Llano, Tex., capital \$75,000, converted into Citizens National Bank of Llano; M. D. Slator, Pres.; C. H. Appleton, Cash.

City Savings and Trust Co., Johnson City, Tenn., capital \$100,000, converted into Washington County National Bank of Johnson City.

E. W. Marshall & Co., Waco, Tex., will take over W. V. Fort & Co.

Guaranty Trust Co., Kansas City, Mo., plans to increase capital from \$750,000 to \$1,000,000.

Investment Finance Corp., Dallas, Tex., increased capital from \$500,000 to \$1,000,000; E. Gordon, Pres.

National Exchange Bank, Baltimore and Hopkins Sts., and Atlantic Trust Co., 17 South St., Baltimore, Md., plan merger under name of Atlantic Exchange Bank and Trust Co. with capital and surplus in excess of \$4,000,000; Waldo Newcomer, Chmn. of Board of Directors; Eugene L. Norton, Pres.; Laurence Jones, Clinton G. Morgan and Jas. Bruce, V.-Pres.; Jos. W. Leffler, Sec.; J. Bosley Jessop, Treas.

R. D. Hudson Building & Loan Co., Orange, Tex., reorganized with R. D. Hudson, Gen. Mgr.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Award of Contract.

A large contract for furnishing motors and silent chain drive to the Craddock-Terry Company, Lynchburg, Va., one of the largest manufacturers of shoes in the South, was recently awarded to the Blue Ridge Electric Co., Inc., 200 East Lexington St., Baltimore, Md.

Appointment of Managers.

The National Steel Fabric Company has appointed H. D. Beaton to be Eastern Manager with headquarters in the Harrison Building, 15th and Market Sts., Philadelphia, Pa. W. L. Whitman, II, is district manager at the same address, and C. S. Reno is district manager at 523-5 West 33rd St., New York City.

\$4,000,000 to Enlarge Plant.

The Youngstown Sheet & Tube Co., Youngstown, Ohio, has made an appropriation of about \$4,000,000 for new construction at its Indiana Harbor plant near Chicago. A new blast furnace of 20,000 tons per month capacity and two more butt-weld mills will be built immediately. It will take a year or more to erect the furnace but the tube mills are expected to be in use by May 1 next. The company will then have 17 blast furnaces and 23 tube mills. The quarterly statement of the company has not yet been issued but it is expected to show excellent earnings.

Promising Business Outlook.

Clifford P. Egan, president of the J. A. Fay & Egan Co., Cincinnati, Ohio, manufacturers of improved and patented woodworking machinery, who has just returned from a western trip as far as San Francisco, where the company has a branch, reports a promising outlook for sales of piece lumber to Japan in consequence of that country having removed the duty on the product. Inquiries are received by the company for its machinery in good volume; sash and door manufacturers are looking to increase their output with improved equipment.

A New Truck and a New Tractor.

The Crescent Truck Company, Lebanon, Pa., manufacturers of electric trucks and tractors, have recently brought out two new machines, one of which is the elevating platform truck Type GEL and the other a four wheel tractor Type TT-23. The first of these is for use in factories, warehouses, etc., which have adopted modern methods of storing goods on skids, platforms and portable bins; it has a two-wheel drive but four wheel steering and its capacity is a pay load of 4000 pounds, running with light load at 6 miles per hour and with rated load from 4½ to 5 miles. It has a wheel base of very nearly five feet. The second machine is for a little heavier work than the Type T 3-wheel tractor in pulling loads carried on trailers and in pulling or pushing machinery or other weighty objects to desired locations. The tractor can take its load into practically any place where there is trackage room. It has 2-wheel drive and 2-wheel steering with normal drawbar pull of 600 pounds and ultimate drawbar pull of 2400 pounds. Speeds are from 7 to 8 miles per hour light or 5 to 6 miles per hour with load. The wheel base is 42 inches.

Efficient Die-Casting Machine.

Edgar N. Dollin, 6 Church St., New York, has, it is stated, perfected a die-casting machine for the use of manufacturers, which is simple to operate by any intelligent workman and it is capable of high rate of production. A number of machines of this pattern are said to be in operation in both this country and England. It is further remarked that these have proven capable of very high production, running well over 200 operations an hour on many long runs. They are interchangeable as to alloys. They will cast aluminum with a high degree of efficiency and may also be changed over to zinc, tin and lead alloys with equal efficiency. They eliminate all hard hand work for the operator, opening and closing the dies and shooting the metal entirely by mechanical power. Besides, they have ample power to pull cores and slides. Upkeep is low and the machines use very little power; a new patented method of using compressed air is employed. In connection with the installation of his machines Mr. Dollin extends engineering service.

Important Installation at Power Station.

One of the most interesting of power stations recently erected is that of the American Construction & Securities Co., Williamsport, Md., which is equipped with two Babcock & Wilcox boilers of 1450 boiler horsepower each, a 14,000 KW Westinghouse generator, and two Link-Belt 'Clean Water' intake screens to handle the condenser water. The coal handling equipment has a 50 ton track hopper with automatic loaders, an automatic skip hoist with balanced buckets, a ten ton auxiliary hopper filter with reciprocating feeder, a two roll crusher, a 24-inch belt conveyor, with traveling tripper, a "Merrick" weightometer, etc. The skip hoist was chosen by the engineers, Sanderson & Porter, of New York, as the better medium of elevating the coal. The entire skip hoist, including structural steel, was designed and manufactured by the Link-Belt Co., of Philadelphia.

Important Deposit of Silica.

One of the best of deposits of high grade silica, which occur in the eastern part of Tennessee and the northern part of Alabama is at Black Fox, Tenn., a station on the Southern Railway near Cleveland, Tenn. This deposit was recently taken over by the Southern Minerals Corporation of Waterbury, Vt., and Cleveland, Tenn., of which R. B. Ladoo, formerly with the United States Bureau of Mines, is general manager. A complete plant for crushing, washing and classifying the product has been installed and it is being sold under the trade names of silica, silice, tripoli and flint. In this deposit the mineral occurs in two different types and in several grades and degrees of fineness as well as in different shades of color. The two types are chert and tripoli. The chert, which is white, has about the same degree of hardness as feldspar. The tripoli, resulting from decomposition of chert, is an extremely fine powder ranging from pure white to shades of yellow, red and gray. The products sold are used in the manufacture of paint, rubber, porcelain, china ware, cleansers, polishes, tooth powders and pastes, foundry facings, wood fillers, phonograph records, and in many other ways.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Two Appointments.

The United States Cast Iron Pipe & Foundry Co. has appointed Thomas P. Anthony to be chief engineer of the company with offices at Burlington, N. J., and P. T. Laws to be Southern district manager at 1002 American Trust & Savings Bank Building, Birmingham, Ala.

Large Building Bond Issue.

One of the latest issues of bonds put out by G. L. Miller & Company, Incorporated, 30 East 42nd St., New York, is \$880,000 of new 7 per cents secured by the Henry Grady Hotel, Atlanta, Ga. These securities mature in series annually in from three to twenty years, and they are first mortgage upon the leasehold estate, building, equipment, etc. A circular issued by the firm gives full particulars.

Professional Merger Completed.

The firm of Denham, Van Keuren & Denham, architects and engineers, has been formed with offices in Suite 411-416 Age-Herald Building, (formerly Jefferson County Bank Bldg.), Birmingham, Ala., by the consolidation of the firms of E. B. Van Keuren & Co., engineers and mill architects, and William L. Denham, architect, and George E. Denham, associate, this merger having taken place November 1.

New Construction and Engineering Firm.

The Schubert-Christy Construction & Machinery Co., Railway Exchange Building, St. Louis, Mo., has been organized by Frank H. Schubert, district manager of the Wheeler Condenser & Engineering Co., and Wm. G. Christy, secretary St. Louis Section, American Society of Mechanical Engineers, formerly with the St. Louis Boat & Engineering Co. In addition to representing leading manufacturers of power plant equipment the new concern will render general construction engineering service.

Life Insurance Company Removal.

The Security Life & Trust Company, which about January 1 will remove its home offices from Greensboro, N. C., to Winston-Salem, N. C., where space is now being made ready for them in the Automotive Building, recently ended a business campaign conducted by ten men, who during the month of October wrote more than \$1,190,000 of insurance in Winston-Salem. The company operates in North Carolina, South Carolina, Georgia and Texas, and it is understood that it proposes to go into other territory as soon as it is established in the new location. The officers of the organization, who it is expected will reside in Winston-Salem, are George A. Grimsley, president; C. C. Taylor, vice-president and general manager; W. T. Grimsley, secretary and treasurer, and W. H. Harrison, actuary, besides a number of clerks and other office workers.

New Mode of Making Cut-Off Wheels.

After years of research for a superior bonding agent to make a striking improvement in cut-off wheels, the Carborundum Company, of Niagara Falls, N. Y., has found that the material known as Redmanol is better than anything else for the purpose, and combined with Aloxite, a hard, sharp and tough manufactured abrasive it produces a wheel that has the united virtues of strength, porosity and hardness with resistance to heat. Redmanol is a phenol resin of the same family as Bakelite and it is observed that wheels made with it as described will go through small stock of the hardest steel very fast and clean, saving stock, time and labor. General practice dictates that wheels 12 inches in diameter be used for cut-off work. They can be made as thin as three-thirty-seconds of an inch. This and one-eighth inch thick are popular. These

wheels are also made in eight inch and under three-sixty-fourths inch thick, ten inch, one-sixteenth thick and fourteen inch one-eighth inch thick. Detailed information as to tests and use of these wheels will be supplied by the company. Surprising tests are noted.

Book Reviews.

Advertising Campaigns. By Harry Tipper and George French. New York: D. Van Nostrand Company. 1923. Pp. 440. \$4.00.

While this book is primarily a guide and reference volume for advertising managers and account executives it is also a text book for business schools and universities. To the former it will be valuable for its details of organization, operation and handling of either country-wide or local advertising campaigns and it analyzes the factors which determine their success. Some of the recently successful campaigns are considered and discussed with full particulars and the reasons for their success are demonstrated. It is claimed to be the first book devoted solely to the executive end of advertising work, to market analysis, to organization, to planning and conducting an advertising campaign. Business men of all kinds will find a perusal of it to their advantage and that a place on their bookshelves for it will be assured. The authors are men of much experience in publicity work. Mr. Tipper, for instance, is the business manager of *Automotive Industries* and he has written upon this and related subjects for some time. Mr. French, who is general editor of *New Jersey Newspapers Incorporated*, is similarly familiar with advertising in its various branches and has, like his associate written extensively upon the subject. The book is beautifully printed on substantial stock and is handsomely bound in blue cloth.

North Carolina's Great Highway Development.

A recent interesting announcement from W. K. Witherspoon, publicity engineer of the North Carolina State Highway Commission tells how road building in North Carolina has developed from its humble beginnings in 1915 with an appropriation of but \$10,000 to one of the leading industries of the state.

Some of the facts brought out by Mr. Witherspoon in his statement are given briefly as follows:

At the present time road and bridge projects under contract involve the expenditure of \$39,277,000, the mileage totaling 1952, which if built in a straight line would reach twice across the state following the route of the Central Highway. Approximately 1022 miles of this total is being hard surfaced at a cost of close to \$30,000,000, while the remaining 922 miles are being graded and surfaced with sand-clay, topsoil or gravel at a cost of \$8,341,000. Bridge work entails the expenditure of over \$1,000,000.

There are now 1200 men engaged in maintaining the state roads totaling 5750 miles. Based on statistics showing that there are 12.4 people to every automobile in North Carolina it is found that the cost of keeping the State roads in first class condition is about \$.022 per day per car.

\$16,000,000 on Kentucky Roads in Three Years.

Frankfort, Ky.—During the period from July, 1920, to July, 1923, Kentucky spent \$16,678,000 on roads, or an average of \$5,559,000 annually, according to a statement issued by J. T. Madison, office engineer in the department of state roads and highways. In that period receipts totaled approximately \$17,500,000.

Including Federal aid, state aid, convict labor and state

contracts let since 1920, and reconstruction under supervision of the maintenance division, there were 991 miles of road of all types completed in the three-year period. This is at the rate of approximately 330 miles per year, which means about 150 miles of road graded and surfaced as 50 per cent of the mileage reported as completed was graded only, the surface to be applied later.

On July 1 of this year there was a total of 1097 miles of road under state maintenance. This is subdivided into 510 miles that were repaired by counties at their expense and accepted by the state for maintenance; 83 miles were reconstructed under the maintenance division, either wholly or partly at the counties' expense; and 502 miles were taken over from the construction division.

To July, 1923, in the form of annual apportionment Kentucky has received from the Federal government a total of about \$8,960,000, and of this sum over \$8,197,000 has been applied to construction of Federal aid projects. The average cost per mile of road construction during the three-year period was about \$15,000.

Briquetting Zinc Ores for Retort Distillation.

Data concerning experiments on the briquetting of zinc ores, conducted by various zinc companies in the Missouri-Kansas-Oklahoma district, have been collected by B. M. O'Harra, associate metallurgist, of the Department of the Interior, attached to the Mississippi Valley experiment station of the Bureau of Mines, Rolla, Mo. Arrangements have been made for Mr. O'Harra to visit a few briquetting plants. These plants are not briquetting zinc ores, but are using processes which can be adapted to zinc ores.

SOUTHERN ENTERPRISE AND ENGINEERING HELPING TO DEVELOP CANADA.

Immense Hydro-Electric Development on Saguenay River—Plant Under Way to Produce 480,000 Horse Power—Larger One to Follow.

That Southern ingenuity and enterprise, while aggressively pushing the industrial advancement of the South, is not confining its efforts to that section, is strikingly attested by the fact that Southern interests are at present actively engaged in the development of an immense water power project in Canada. This project is located at Isle Maligne on the Saguenay River, where it is planned to generate 480,000 horsepower, and upon completion of this plant, to begin a second and larger development about 20 miles away on the same river which will develop 1,000,000 horsepower.

This huge development has been undertaken by the Quebec Development Co., Ltd., in which James B. Duke, of Charlotte, N. C., and New York, and Sir William Price, of Canada, are prime movers. W. S. Lee, vice-president and chief engineer of the Southern Power Co., of Charlotte, holds similar positions with the Quebec Development Co., Ltd., while Frank H. Cothran, a native of South Carolina and until recently a member of the engineering staff of the Southern Power Co., is vice-president of the Canadian company and in charge of construction of the Isle Maligne plant.

As stated, the plant under construction at Isle Maligne will have a total generating capacity of 480,000 horsepower, its equipment to include twelve 40,000-horsepower generators. The power house will be 800 feet long, about four times the size of the power house of the new Mountain Island plant of the Southern Power Co., with six times the generating capacity. Work on this plant was started January 8 and it is thought the first generating units will be ready for operation by January 1, 1925, while the entire station will be completed, according to schedule, about January 1, 1926.

It is stated that the contract for the generator equipment was the largest ever awarded for machinery of this class. The generators are now under construction at the plant of the Canadian Westinghouse, Ltd., at Hamilton, Ontario. Contract for the water wheels has been awarded to the Canadian Allis Chalmers Manufacturing Co. and this part of the equipment is being built at four shops in Canada. Likewise it is said that this contract is the largest ever awarded for machinery of this kind. As emphasizing the rapid progress being made in the construction of the plant, a railroad has already been completed to the site and in the first week after its completion on August 20, it is said 108 carloads of equipment and freight were delivered, the equipment consisting of locomotives, cars, steam shovels, rock crushers, concrete mixers, air compressors, pipe, electric hoists and other machinery.

Foundations and necessary buildings for the equipment had already been constructed and it was only necessary to unload it from the cars to the proper locations, much of the equipment being placed on its foundation directly from the carrier. Two concrete mixers which are among the largest ever put in operation were placed on their foundations and made ready for operation within forty-eight hours after being received. Eight rock crushers are a part of the machinery used and these also are among the largest of their kind ever constructed. The process of crushing stone consists of passing it through the primary crusher, from which it goes to the other crushers in succession until it is reduced to the proper size for concrete work.

Construction work is being done by the Quebec Development Company itself, rather than by contract, and it is stated that the Canadian government has given the com-

pany every encouragement and co-operation before and since the beginning of construction. The sites being developed are rated among the most notable in North America. The plant under construction and the one to be constructed 20 miles below, will have the advantage of the storage capacity of Lake St. John, with dimensions of 35 by 25 miles, together with the lake to be formed in the valley of the Saguenay River by the Isle Maligne dam, which is seven miles down the river.

The second plant will be constructed at the Shipshaw site, but no definite date has been set for beginning construction. It is thought likely that work will not be started before the Isle Maligne plant has been finished, as this would necessitate the acquisition and placing of a duplicate set of equipment and machinery. It is pointed out, however, that the larger plant may be started immediately after the completion of the one under construction, especially as indications lead to the belief that the entire output of the Isle Maligne plant will have been contracted for before the plant is put in operation.

\$1,000,000 Bank Building Under Way.

Galveston, Tex.—Work is now going forward on the 11-story building of the Texas State Bank & Trust Co. here, which when completed will represent an investment of about \$1,000,000. After the first of the year the bank will be known as the United States National Bank. The United



11-STORY BANK BUILDING AT GALVESTON.

States National Building Co. was incorporated some months ago to finance the erection of the new building.

The structure is being erected by the Westlake Construction Co., of St. Louis and Fort Worth, after plans by Alfred C. Bossom, architect, New York City, and Sanguinet, Staats & Hedrick, of Fort Worth, associate architects. Others engaged in the work are: Montrief & Montrief, Fort Worth, plumbing; Kinnison Bros., Dallas, heating; Eugene Ashex Electric Co., Fort Worth, electrical work.

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If so, we shall be glad to suggest architects or engineers.

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"Paper making machinery—for fifty years"

We build paper making machinery, centrifugal pumps, auto-claves, friction clutches, river steamers, tug boats and barges.

Construction Soon on \$1,000,000 Hotel.

Construction will start in 60 days' time on the \$1,000,000 Cape Fear Hotel at Wilmington, N. C. It is to be a 9-story 150-room fireproof structure, of brick and limestone with terra cotta trimmings, after plans by G. Lloyd Preacher &



\$1,000,000 HOTEL FOR WILMINGTON.

Co., Inc., architects and engineers, of Atlanta, Ga. Walter Clark, Wilmington, has the general contract; J. L. Alexander, Greenville, S. C., is the lessee; and G. L. Miller & Co., of Atlanta and New York, are the underwriters. The structure is being erected by The Hotel Corporation, Roger Moore, President.

A New Viewpoint of Illiteracy in All States.

S. A. STEVENS, Santa Monica, Cal.

White illiteracy by states in the United States is as follows, the list including all native-born, all native-born of foreign parentage, all foreign-born, and all mountain people:

Alabama, 65,000; Arizona, 3,000; Arkansas, 41,000; California, 95,000; Colorado, 24,000; Connecticut, 67,000; Delaware, 10,000; District of Columbia, 10,000; Florida, 71,000; Georgia, 66,000; Idaho, 4,000; Illinois, 173,000; Indiana, 52,000; Iowa, 20,000; Kansas, 22,000; Kentucky, 112,000; Louisiana, 81,000; Maine, 20,000; Maryland, 15,000; Massachusetts, 140,000; Michigan, 88,000; Minnesota, 34,000; Missouri, 83,000; Montana, 9,000; Nebraska, 13,000; Nevada, 3,000; New Hampshire, 15,000; New Jersey, 127,000; New Mexico, 41,000; New York, 425,000; North Carolina, 104,000; North Dakota, 9,000; Ohio, 181,000; Oklahoma, 56,000; Oregon, 9,000;

Pennsylvania, 312,000; Rhode Island, 31,000; South Carolina, 38,000; South Dakota, 8,000; Tennessee, 110,000; Texas, 80,000; Utah, 6,000; Vermont, 8,000; Virginia, 70,000; Washington, 18,000; West Virginia, 69,000; Wisconsin, 59,000; Wyoming, 3,000.

The comparative illiteracy of states should be reckoned upon area rather than population. A state furnishes schools for a certain number of square miles, regardless of how few citizens the different districts contain. In schools having eight or ten pupils and a corresponding number of taxpayers teachers must be maintained at the same prices as in schools having fifty pupils. So a large, thinly settled state, though its population may be nearly the same as a smaller state, has far more ground to cover in providing schools from its appropriation than a smaller state with an almost equal population. Rhode Island has 31,000 illiterates and 1200 square miles of territory, making twenty-four illiterates per square mile, almost enough, if multiplied by the number of counties in Texas over the number of counties in Rhode Island, to completely populate Texas as densely as she is now populated. Hence the illiteracy of Rhode Island is far more to be censured than the illiteracy of Texas. If Texas had 31,000 illiterates in any one county the proportion would be about equal, as an evidence of neglect of education, with that of Rhode Island which has so small an area to cover with schools and so large a population to bear the expense of them. Texas has an area of 225,000 square miles, which with her 80,000 illiterates, gives one-third of an illiterate per square mile as against Rhode Island's twenty-four to the square mile. Georgia has 60,000 illiterates to 59,000 square miles, making a fraction over one illiterate to the square mile; while New York, the richest state in the Union, has 49,000 square miles and 425,000 illiterates, or eight illiterates to the square mile.

For a long time in these United States the pot has been calling the kettle black on this illiteracy question. The states of the Old South, through this unjust propaganda, have gotten a name all over the world for their illiteracy—a bad name, which only an equal amount of advertisement of their real efforts along this line could remove. The chief offenders against the South in this respect, perhaps, of all the writers from different states, are those from Massachusetts, with her 8,000 square miles and her 146,000 illiterates—eighteen illiterates per square mile; from New Jersey, with her 8,000 square miles and her 127,000 illiterates, making fifteen illiterates per square mile; from New York with her 425,000 illiterates—a cityful.

One of two rival railroads in a certain state boasted that it killed more passengers in the course of a year than its rival carried. So the Northeastern states of the United States might boast that they have more illiterates than the South has population.

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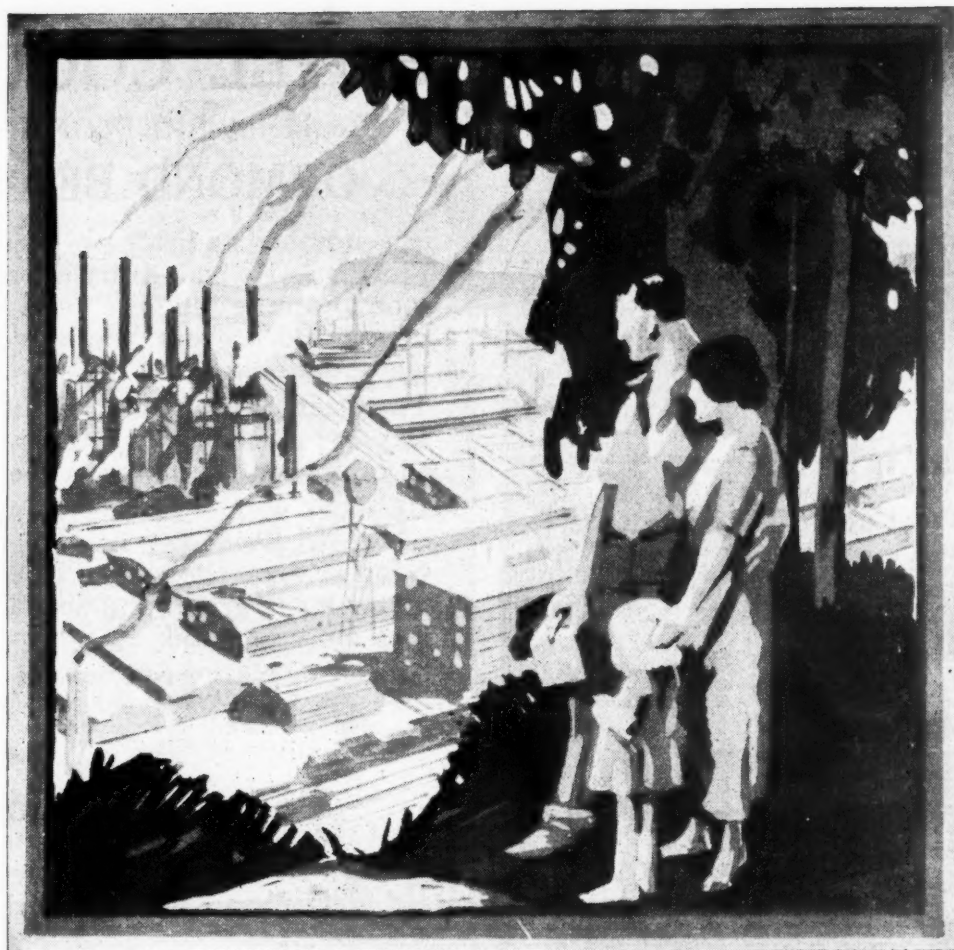
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A Successful and Progressive Institution.

The statement of the Baltimore Commercial Bank, Baltimore, Md., as of November 1 shows total resources of more than \$9,600,000 which includes loans of over \$6,700,000 and cash reserves of more than \$1,750,000, besides other items. It is noted that this statement, which gives the total deposits as more than \$8,150,000, shows that the Baltimore Commercial Bank is the largest state bank in Maryland and although it has distributed \$221,575 in dividends since January 1, 1918, when the first dividend was paid, the profit and loss account has kept pace with the growth of the institution. The capital is \$750,000, surplus, \$150,000, and undivided profits and reserves \$182,746.

A letter to the stockholders accompanying the statement, reminds them that the bank has been in business only eight years and the President furthermore says that its activities in connection with the development of the

commercial and industrial life of the city have firmly established it in the public mind. Since it began business it has advanced to its clients many hundreds of thousands of dollars in loans to erect or improve business properties in the city. Greater service to the public has been extended by the establishment of four branches in different parts of Baltimore in addition to the main bank.

The officers of the bank are Gwynn Crowther, president; Robert A. Welsh, vice president; C. Walter Katenkamp, cashier; C. Milton Lancaster, Arthur C. Adams, W. Harry Ewalt and William C. Walker, assistant cashiers; and Robert A. Diggs, assistant to the president.

The State Highway Commission, Frankfort, Ky., has awarded a contract to the Northfork Construction Co., Jackson, Ky., for 7.32 miles of road in Breathitt County, to cost of \$204,816.

PROPOSALS

BOND ISSUES BUILDINGS PAVING GOOD ROADS

Bids close December 22, 1923.

SEALED PROPOSALS will be opened in Room No. 791, U. S. Veterans' Bureau, Arlington Building, Washington, D. C., at 11 A. M., December 22, 1923, for construction complete of Infirmary; Administration, Mess, and Kitchen building; Recreation building; Nurses' Quarters; Attendants' Quarters; Garage; Storehouse; Boiler House and Laundry; Occupational-Therapy building; Ambulant cottages; Officers' Quarters; including mechanical equipment and Outside service lines except grading, roads and walks at the U. S. Veterans' Hospital, Livermore, California.

SEPARATE PROPOSALS will be received for building construction; central heating including boiler plant and heating equipment for all buildings; water supply, plumbing and sewers; electrical equipment; elevators; refrigerating plant; and stack; all as set forth on proposal sheet. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and who have established a record for satisfactory work and expedition on contracts of similar character and magnitude.

Drawings and specifications may be obtained upon application to the Construction Division, U. S. Veterans' Bureau, Room No. 791-A, Arlington Building, Washington, D. C., or to Wm. H. Radcliffe, Bureau Representative, Livermore, California. Deposit with application of a certified check or Postal money order, in amount \$100.00, payable to the Treasurer of the United States, is required for the safe return of drawings and specifications within ten days from date of opening proposals. FRANK T. HINES, Director, November 17, 1923.

Bids close December 18, 1923.

DEPARTMENT OF THE INTERIOR. November 14, 1923. Sealed proposals in duplicate will be received at the Department until 2 o'clock P. M., Tuesday, December 18, 1923, for the Erection and Completion of Seven Bungalows at St. Elizabeth's Hospital, Washington, D. C., in accordance with plans and specifications, copies of which may be obtained from the Chief Clerk of the Department. Applicants for plans will be required to deposit a certified check for \$25, payable to the order of the Secretary of the Interior, as a guarantee that the plans will be returned in good condition. The right is reserved to reject any or all bids, to waive technical defects, or to accept one part and reject the other as the interests of the Government may require. Proposals must be marked "Proposals for Erection of Seven Bungalows at St. Elizabeth's Hospital," and be addressed to the Secretary of the Interior, Washington, D. C. F. M. GOODWIN, Assistant Secretary.

RATE: 35 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 4 P. M., Monday.

DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—35 cents per line per insertion.

Bids close December 19, 1923.

PROPOSALS FOR STERN-WHEEL STEEL TOWBOAT.—Office, First and Second Mississippi River Districts, 1006 McCall Building, Memphis, Tenn.—Sealed Proposals will be received here until 11 a. m. Dec. 19, 1923, and then opened, for furnishing one stern-wheel steel towboat. Further information on application.

Bids close December 19, 1923.

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA.—Sealed proposals will be received here until 11 A. M., December 19, 1923, and then opened, for furnishing and delivering Diesel engine with electric generator, propulsion motor, and control equipment for same, for Towboat Kanawha. Further information on application.

Bids close December 19, 1923.

U. S. Engineer Office, Wilmington, N. C. Sealed proposals will be received here until 12 o'clock noon, December 19, 1923, and then opened for dredging in Inland Waterway, Beaufort to Jacksonville, N. C. Further information on application.

Bids close December 27, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., Nov. 23, 1923.—SEALED PROPOSALS will be opened in this office at 3 P. M., Dec. 27, 1923, for the construction of the United States Post Office and Court House at Paris, Texas. The drawings contemplate a one-story and basement building approximately 109 by 88, brick and stone facing, fireproof except roof. Drawings and specifications may be obtained from the Custodian of the Post Office at Paris, Texas, or at this office, in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close December 18, 1923.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., Nov. 24, 1923. SEALED PROPOSALS will be opened in this office at 3 p. m., Dec. 18, 1923, for the construction of a new mailing vestibule with fuel room beneath about 37x19 feet in plan, with brick exterior wall with non-fireproof interior and roof construction, a new parcels post room in basement and lift enclosure, at the United States Post Office and Court House, at Greenville, S. C. Drawings and specifications may be obtained from the Custodian of the building, or at this office in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close December 17, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., November 17, 1923.—SEALED PROPOSALS will be received at this office until 3 P. M., December 17, 1923, and then opened, for remodeling, changes, etc., at the United States Marine Hospital, Mobile, Alabama, in accordance with the specification and drawings, copies of which may be obtained at this office, or the office of the Custodian, Mobile, Ala., in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close December 18, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., November 24, 1923. Sealed proposals will be opened in this office at 3 p. m., December 18, 1923, for the installation complete of one full magnet electric freight elevator for the U. S. Post Office and Court House at Greenville, S. C. Drawing and specifications may be obtained at this office in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close December 12, 1923.

Sealed bids in duplicates on large quantities of used material, including old iron and metals, a standard gauge locomotive, automotive equipment and parts, road scraper and tractor, miscellaneous old machinery, plumbing and building supplies and equipment, surgical instruments, X-ray equipment etc., situated at U. S. Veterans Rehabilitation Center, Federal Park, Maryland (railroad station Perryville) will be received until 11 A. M., December 12, 1923, at the Supply Division, U. S. Veterans Bureau, 736 Arlington Building, Washington, D. C. For mimeographed list of articles and bidding forms apply to Chief of Supply Division at above address or to Community Manager, U. S. Veterans Rehabilitation Center, Federal Park, Maryland. FRANK T. HINES, Director, U. S. Veterans Bureau.

Bids close December 11, 1923.

\$90,000 5½% School Bonds

Eufaula, Ala.
Sealed proposals will be received and opened by the City Council of the City of Eufaula, Alabama, on Tuesday, the 11th day of December, 1923, said bids to be filed with the City Clerk of Eufaula, not later than 11 o'clock on said date, for the sale of the following described public school bonds.

One Hundred Eighty Bonds of the City of Eufaula, Alabama, of the denomination of \$500.00, each, aggregating \$90,000.00, said bonds being issued under authority of an election held May 28, 1923, at which election the electors of the City of Eufaula authorized the issuance of One Hundred Thousand Dollars of bonds for the purpose of acquiring, providing or constructing a school house, or school houses, in the City of Eufaula.

This issue of bonds is designated as Public School Bonds, being dated 1st day of January, 1924, and will mature at periods of five, ten, fifteen, twenty, twenty-five and thirty years from date, being issued in six equal series, and will bear interest at the rate of 5½ per centum per annum, payable semi-annually, in gold coin, at the office of American Exchange National Bank of New York, N. Y.

These bonds are exempt from State, County, and municipal taxation.

Said bonds shall be paid for, when delivered, in cash by the purchaser at the price agreed upon, and will be delivered to the said purchaser at an agreed place as soon as practicable after their sale.

The purchasers of these bonds will be furnished a copy of the approving opinion of Messrs. Storey, Thorndike, Palmer & Dodge, attorneys of Boston, Mass. The Council reserves the right to sell said bonds in separate series, or as a whole.

A certified check in the amount of \$1000 must accompany each bid.

The Council reserves the right to reject any or all bids.

By order of the City Council.

T. C. DOUGHTIE,
City Clerk.

Bids close December 11, 1923.

\$100,000 5% Town Bonds

Farmville, Va.
Sealed proposals are hereby invited by the Finance Committee of the Town of Farmville, Va., for the purchase of \$100,000.00 par value of bonds of said town, of which amount \$50,000.00 par value will be known as Electric Light Improvement Bonds Series H, and \$50,000.00 par value will be known as Street Improvement Bonds Series H. All of said bonds will bear interest at 5% per annum, payable semi-annually, said bonds to be dated January 1, 1924, and payable twenty years after date, at the First National Bank of Richmond, Virginia.

All bids must be accompanied by certified check for \$1000.00 payable to the Town of Farmville, Va., and must be in the hands of the undersigned not later than 12 o'clock noon, December 11, 1923. The right to reject any and all bids, in whole or in part, is hereby reserved.

Additional information will be furnished on application to H. B. Warriner, Treasurer of the Town of Farmville, Va.

E. S. SHIELDS,
Chairman of Finance Committee of Town of Farmville, Va.

Bids close December 12, 1923.

\$15,000 6% School Bonds

Kite, Ga.
Will be sold to the highest bidder for cash on December 12th, 1923, at 12 o'clock, noon, \$15,000.00 Kite Consolidated School District Bonds, in and for the Kite Consolidated School District bearing interest from date of issue, to-wit: December 1st, 1923, at the rate of six per cent interest, payable annually, at Mechanics & Metals National Bank, New York. Said bonds maturing December 1st, 1943. Said sale to be at the Citizens Bank of Kite, Ga., and all bids must be accompanied by certified check for at least \$500, be addressed to J. S. Stephenson, Clerk of the Board of Trustees of the Kite Consolidated School District, Kite, Ga., and be sealed and plainly marked "Bids for Bonds." The Board of Trustees of said School District reserves the right to reject any and all bids.

This November 15th, 1923.

Kite Consolidated School District,
By J. S. STEPHENSON,
Clerk of the Board.

Bids close January 1, 1924.

\$25,000 6% School Bonds

Bushnell, Fla.
NOTICE IS HEREBY GIVEN, That the undersigned Clerk of the Board of Public Instruction in and for Sumter County, Fla., will receive bids up to noon on the 1st day of January, 1924, at his office in the Court House in Bushnell, Fla., for Twenty-five \$1000.00 Bonds of Special Tax School District No. 4 of Sumter County, Fla., said bonds dated September 1, 1923, bearing interest at the rate of 6% per annum, interest payable semi-annually, payable both interest and principal at the Hanover National Bank, New York City, said bonds maturing as follows:

Five of said bonds being due and payable September 1, 1933, and one of said bonds on the 1st day of September of each and every year thereafter, up to and including September 1, 1953.

The bidder is required to deposit 1% of his bid as evidence of good faith.

The Board reserves the right to reject any and all bids.

(SEAL) W. T. EDDINS,
Secretary Board Public Instruction, Sumter County, Fla.

Bids close December 15, 1923.

\$670,000 5% Bonds

Daytona, Fla.
Sealed proposals will be received by the undersigned, the City Clerk of the City of Daytona, Florida, until 11:00 o'clock A. M.,

DECEMBER 15, A. D. 1923,

for the following issues of bonds of said City:

\$260,000.00 "WATER FRONT PARK BONDS." Dated November 1st, 1923. Due \$10,000.00 November 1st each year 1928-1953 inclusive. Interest payable November 1st and May 1st at 5%. Denomination \$1000.00 each.

\$200,000.00 "PAVING AND DRAINAGE BONDS OF 1923." Dated November 1st, 1923. Due \$8000.00 November 1st, each year 1928-1952 inclusive. Interest payable May 1st and November 1st at 5%. Denomination \$1000.00 each.

\$100,000.00 "SANITARY SEWER SYSTEM BONDS OF 1923." Dated November 1st, 1923. Due \$4000.00 November 1st each year 1928-1952 inclusive. Interest payable May 1st and November 1st at 5%. Denomination \$1000.00 each.

\$100,000.00 "WATER WORK IMPROVEMENT AND EXTENSION BONDS OF 1923." Due \$4000.00 November 1st each year 1928-1952 inclusive. Interest payable May 1st and November 1st at 5%. Denomination \$1000.00 each.

\$10,000.00 "FIRE STATION BUILDING BONDS." Dated November 1st, 1923. Due \$1000.00 November 1st, each year 1925-1934 inclusive. Interest payable May 1st and November 1st at 5%. Denomination \$1000.00 each.

All of said issues of bonds have been validated by decree of the Circuit Court of the Seventh Judicial Circuit of the State of Florida, in and for Volusia County.

Bidders must bid on each of the above issues separately.

Both principal and interest on all issues payable at the office of the Treasurer of said City of Daytona or at the Merchants Bank & Trust Company or at the Daytona Bank & Trust Company of Daytona, State of Florida, or at the National Bank of Commerce, City of New York, State of New York, at the option of the holder thereof.

Each proposal must be accompanied by cash or a certified check from an incorporated bank or trust company in the State of Florida, payable to the order of L. E. Hough, City Clerk, for one per cent of the par value of the bonds bid for. The check of the successful bidder to be retained by the City as security for the completion of the contract of sale by the purchaser and checks of all unsuccessful bidders to be forthwith returned.

These authorized issues of bonds to be sold subject to the approving opinion of John C. Thompson, Esq., of New York City, New York, to be furnished by the City of Daytona, Florida.

The right to reject any or all bids is hereby requested.

It is requested that no bids be made except on the form provided by the City Commissioners of the City of Daytona, which form will be supplied by the undersigned upon request.

For further information, address the undersigned.

L. E. HOUGH, City Clerk.

Bids close December 17, 1923.

\$112,000 5% Paving Certificates

Lake Charles, La.
The City of Lake Charles, Louisiana, will offer for sale on the 17th day of December, 1923, \$112,000.00 in paving certificates to be issued in denominations of \$100.00, \$500.00, or \$1000.00, as the purchaser may elect, and maturing in annual installments of \$11,200.00 per year, beginning with January 1st, 1926, said certificates will be dated January 1st, 1924, and bear interest at five per cent from date. Sealed proposals for the purchase of said certificates will be accepted by the Commissioner of Finance of the City of Lake Charles, up to 7:30 P. M., on the date of said sale. Proposals must be accompanied by a check for three per cent of the amount of the bid.

Particulars as to said certificates will be furnished to any one by the undersigned, upon inquiry.

J. H. FUNDERBURG,
Commissioner of Finance

Bids close December 6, 1923.

Creosoted Timber Bridges

THE SUMTER COUNTY PERMANENT ROAD COMMISSION

Sumter, S. C.
Notice is hereby given that sealed proposals will be received by the Sumter County Permanent Road Commission at the City Hall in Sumter, S. C. until 10 o'clock A. M., December 6th, 1923, for the grading and for constructing Creosoted Timber Bridges in Black River Swamp on the Shiloh Road in Sumter County.

The work to be done consists of the following approximate quantities:
25,000 Cu. Yds. of embankment in Swamp
94,833 M. B. M. Creosoted Lumber
4,456 Lin. Ft. Creosoted Piling
6,050.6 Lbs. Hardware
1,031 Sq. Yds. Bit. Surface Treatment for Flooring.

Bids on this work must be accompanied by a bidder's bond or certified check for \$1000.00.

Plans for the work may be seen at the office of the Engineers, Lee, Pennell & Murray, Sumter, S. C. Specifications and Proposal forms may be obtained from the engineers upon request accompanied by a check for \$5.00, which sum will be refunded if same are returned within 30 days after receipt of bids.

The right is reserved to reject any or all bids and to waive all technicalities.

Sumter County Permanent Road Commission, Sumter, S. C.

LEE, PENNELL & MURRAY, Engrs.,
Sumter, S. C.

Bids close December 5, 1923.

Road Construction

Punta Gorda, Fla., Nov. 10, 1923.
Sealed proposals will be received by the Board of County Commissioners of Charlotte County at Punta Gorda, Florida, until 12 o'clock noon, on the 5th day of December, 1923, for the construction of the following section of road:

Project No. 564-A, Road No. 5 in Charlotte County, approximately 10.885 miles in length. Work to be done consists of the following approximate quantities:
Clearing and grubbing, 55,535 acres.
Regular excavation, 167,070 cu. yds.
Untreated structural timber, 51.3 M. F. B. M.
Treated structural timber, 98.1 M. F. B. M.
Untreated trestle piles, 5104 lin. ft.
Treated trestle piles, 3520 lin. ft.
24-in. C. I. Pipe, 36 lin. ft.

All work to be done in accordance with plans and specifications of the State Road Department.

A certified check or bidder's bond made payable to the Chairman of the Board of County Commissioners in the sum of 5 per cent of the amount bid, must accompany each proposal.

Plans may be examined at this office and at the office of the State Road Department, Tallahassee, Fla., and at the office of the Division Engineer, Lakeland, Fla., or may be obtained upon application to the State Road Department, Tallahassee, Fla., for the sum of \$5.00 each, which amount will be refunded if plans are returned in good condition to the office of the State Road Department at Tallahassee by a bona fide bidder within 10 days after bids are received.

The right is reserved to reject any or all bids.

J. T. SWINNEY,
Chairman B'd. of Co. Commrs.
Charlotte County.

R. C. BLOUNT,
Clerk of Circuit Court.

Bids close December 12, 1923.

Street Improvements

Fayetteville, N. C.

Sealed proposals will be received by the Mayor and Board of Aldermen of the City of Fayetteville, N. C., until 10.00 A. M., December 12, 1923, at the City Hall in Fayetteville, N. C., for the construction of Street Improvements.

The work will consist of 75,000 square yards or more of Sheet Asphalt, Bitulithic or other Bituminous Pavement on a cement concrete foundation; or one course Concrete Pavement; Combined Concrete Curb and Gutter; Granite Curbing with Concrete or Vitrified Brick Gutter; Storm Drainage, etc.

Proposals must be marked "Proposals for Street Improvements for the City of Fayetteville, N. C." All bids must be submitted upon blank forms provided in copies of the proposal, contract and specifications.

Each bid must be accompanied by a certified check for five (5) per cent of the amount of the bid, as evidence of good faith.

Plans, copies of the proposal, contract, specifications, etc., may be obtained upon application to the Engineer.

The City reserves the right to reject any or all bids or to award contracts which appear to be for the best interests of the City.

H. J. McBUIE, City Clerk.
WILLIAM C. OLSEN, Engineer.
Raleigh, N. C.
Kinston, N. C.

Bids close December 12, 1923.

Sewers

Baton Rouge, La.

Sealed bids will be received by the Commission Council of Baton Rouge, La., at the City Hall until 11.00 A. M., Wednesday, December 12th, 1923, for constructing certain Sanitary Sewers and Appurtenances in the City of Baton Rouge.

Approximate Quantities:

76000 lineal feet 8" V. C. Pipe
4800 lineal feet 10" V. C. Pipe
7500 lineal feet 12" V. C. Pipe
2200 lineal feet 18" V. C. Pipe
252 Manholes
77 Flush tanks (Miller)

Plans and specifications on file in the office of the Consulting Engineer City Hall, Baton Rouge, La. Copies may be had upon payment of fifteen dollars.

A certified check or bidders bond for \$7500.00 payable to the Commissioner of Finance, Baton Rouge, must accompany each bid. The right is reserved to reject any and all bids.

J. W. BILLINGSLEY,
Consulting Engineer.

Carpentry Work

Wanted to sublet large lot of carpentry work, high school building, Chester, S. C.

Apply
KING LUMBER CO.,
Charlottesville, Va.

Bids close December 20, 1923.

Street Improvements

Lakeland, Fla.

Will be received by the City of Lakeland, Florida, until 7.30 p. m., Thursday, December 20th, 1923, for grading, curbing, paving and widening streets, avenues, courts, drives, driveways and alleys with a width of 20 to 30 feet and a total length of about 17.28 miles for new paving; a width of 4 to 12 feet and a total length of about 0.69 miles for widening existing brick pavements; and a width of 10 to 24 feet and total length of about 1.44 miles for widening of existing asphalt pavements, as shown on list of streets to be paved or widened, given in detail in 1st attached to the specifications. The types of street pavements to be bid upon include asphalt, brick and Portland cement concrete on Bartow clay, Florida limestone, Portland cement concrete, and sand foundations, and include curbing, grading, and necessary storm drainage.

Blank forms of proposal and specifications will be furnished prospective bidders. Plans for the same are on file in the offices of the City Manager and City Engineer of said City, where they may be examined.

Certified check for \$15,000.00 is required with each bid and bond for fifty (50) per cent of the contract price will be required of the successful bidder, such bond to be a bond with reputable and responsible surety company as surety and written by company or companies having as agents resident citizens of the City of Lakeland.

The City reserves the right to reject any and all bids.

The City reserves the right to increase or decrease the amount of work included in these specifications without affecting in any way the contract prices and without affecting the specifications or contract in any other respect.

The City reserves the right to group the work in units as set forth in instructions to bidders and to let separate contracts on any one or more units.

The City reserves the right to purchase brick and concrete materials and furnish them to the contractor to be placed by him under the specifications at prices bid by him.

ANTON SCHNEIDER,
City Manager.
CHARLES CARROLL BROWN,
City Engineer.

Bids close December 17, 1923.

Waterworks Improvements

Elizabethtown, Ky.

Sealed bids for improvements to the waterworks at Elizabethtown, Ky., will be received by the Mayor and City Council, at the office of the City Clerk until 2 o'clock P. M., December 17, 1923, at which time and place they will be publicly opened and read.

The improvements proposed consist of: The construction of a 750,000 gallon gravity type filtration plant, in two units. Furnishing 4 centrifugal pumps and electric motors.

Bids will be received separately on furnishing and installing the filter equipment.

Plans and specifications may be examined at the Mayor's office at Elizabethtown, Ky., or at the office of the Engineer, or a copy may be obtained from the Engineer upon receipt of a deposit of \$15.00 of which amount \$10.00 will be refunded when the plans and specifications are returned in good order.

If additional information is required, address the Engineer.

The right is reserved to reject any and all proposals and to waive informalities.

The contractor will be paid in cash on monthly estimates amounting to 90% of the value of the work done and materials furnished.

All proposals and bids must be accompanied by a certified check drawn on a responsible bank or trust company and made payable to Starling Wells, City Clerk, for a sum not less than 5% of the aggregate of the proposal.

The successful bidder will be required to furnish a performance bond in the sum of 50% of the contract price.

B. H. KLYCE, Engineer.
720 4th and 1st Nat'l Bank Bldg.,
Nashville, Tenn.

Bids close December 11, 1923.

Warehouse

Tampa, Fla.

Sealed bids will be received by the City Commission of Tampa, Florida, until Tuesday at 2 o'clock, P. M., December 11th, 1923, for furnishing all material and labor, and building a warehouse 69x75-ft., at the City Docks, in the City of Tampa; all in accordance with the plans and specifications, copies of which may be secured from A. W. D. Hall, Engineer in charge of the work. Post Office address Box 2736.

The erection of the building can not be started until certain work now under way is completed, which will not be before Feb. 15th.

Each bid shall be accompanied by a certified check for Five per cent of the amount of the bid as a guarantee the successful bidder will enter into contract and furnish bond as required by the specifications. The checks of unsuccessful bidders will be returned within thirty days from the date letting. The Commission reserves the right to reject any or all bids.

CHAS. H. BROWN,
Mayor Commissioner.
WM. E. DUNCAN,
City Clerk.
A. W. D. HALL,
Engineer.

Bids close December 17, 1923.

Fire Hose Wagon and Pumper

Vicksburg, Miss.

Sealed bids will be received at the office of the City Clerk of Vicksburg, Mississippi up to 4 o'clock P. M., December 17th, 1923, for the purchase of one Triple Combination Fire Hose Wagon and Pumper. Bidders to furnish detailed specifications of their outfit. Certified check for 10% of the amount of bid must accompany same.

The Board reserves the right to reject any and all bids.

J. J. HAYES, Mayor.



CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWER, MISCELLANEOUS PROPERTIES

FOR SALE—5120 acres solid muck, available, one body, hard road, very low price from owners. The Dixie Highway Muck Co., Arcadia, Florida.

SOUTHERN INVESTMENT Opportunities. We offer timber lands, coal lands, mines, sawmills, industrial plants, ice plants, public utilities, quarries, etc. Hodgson Investment Company, Knoxville, Tenn.

FOR SALE—Cement land, shale and rock, Lignite coal fuel, under same property all fine quality material, engineers report, high elevation, excellent location and transportation facilities. Address J. R. Nickson, Box 102, Mt. Washington, Mo.

RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more, 25c. per line.

LIMESTONE DEPOSITS

LIMESTONE PROPERTY AT MUSCLE SHOALS FOR SALE—160 acres high grade limestone. Working face averages over 80 ft. above loading grade. Property within 3 miles Government Nitrate Plant, on River and Railroad. Big demand for lime and stone. Splendid opening for lime kiln and crushing plant. Plenty shale close to use with limestone for Portland cement. Price \$150 per acre. Terms easy. Sumner Realty Company, Sheffield, Ala.

FULLERS EARTH

FOR SALE—Fullers-earth and brick clay land, fine quality, splendid location with fuel available.

Address J. W. Uhels, Elko, Ga.

GLASS AND BRICK SAND

FOR SALE—Glass and brick sand deposit, fuel handy, splendid location for factories.

Address J. W. Uhels, Elko, Ga.

**MOULDING AND SILICA SAND LAND
FOR SALE.**

Moulding and Silica Sand Land
Address T. J. Nertney,
Ottawa, Ill.

COAL LANDS AND MINES

FOR SALE OR EXCHANGE—2500 acres unimproved coal land in tracts, \$35 per acre; has several seams; top drift; adjacent railroad, mines, gas and oil. Write J. CAVANAGH, McAlester, Okla.

FOR SALE OR LEASE—400 acres on P. R. R. in Jeff County, Pa. 5-ft. seam, Write ALEX. WAITE, Reynoldsville, Pa.

FOR SALE—Lignite coal land in section where coal and freight rates are high, great opportunity for mining interests. Address J. W. Uheis, Elko, Ga.

TIMBER AND TIMBER LAND

FOR SALE: 4,000,000 feet long and short leaf pine, located on Chattahoochee River and seven miles from A. C. L. R. R. Karl Simmons, R. F. D., Bascom, Fla.

55,000 ACRES HARDWOOD in fee, Tennessee, on railroad; cut one hundred ninety million feet; Seven dollars per acre. W. T. KIME, Grandview, Mo.

FOR SALE—30 Million feet long leaf pine on 5500 acres land. Logging conditions ideal, on railroad and navigable stream. Complete modern saw mill, dry kiln and planing mill, 40,000 feet daily capacity; \$50,000 cash payment required, balance can be arranged. Would consider selling interest to right people. Complete information on request. We are owners, not agents. Address No. 6226 care Manufacturers Record,

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FOR SALE—Mississippi Land, 1100 acres, well located in Jasper Co., limestone and sandy soil. Cotton, corn, alfalfa and other crops grown. Good pasture grasses and clovers. For further information, write N. D. Graham, Rose Hill, Miss.

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HAVE CLIENT WANTING tract land suitable for Pecans, Oranges, Grape Fruit, Sweet Potatoes and other crops. What have you? Submit complete information, prices and terms. SOUTHLAND ADDITION SYNDICATE, P. O. Box 922, Kansas City, Mo.

FARM, FRUIT, AND TRUCK LANDS

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FLORIDA—Playground of the Rich; Paradise on the poor. The fastest developing State in the Union, and Roger Babson, the great business statistician, says that TAMPA is destined to be the greatest city in the Southeast. Come and be one of us. We have a Home, Grove or Farm for you. Send today for booklet "Largest Orange Tree in the World," and list. Tampa-West Coast Realty Co., (Inc.) Opp. Post Office, "Since before the war," Tampa, Fla.

FOR SALE—The choicest 30-acre orange-grapefruit grove in Pinellas County, Fla. Nearly 3000 trees. Present crop about 18,000 boxes. Three crops should purchase grove. Half within city limits. Box 225, Dunedin, Fla.

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FOR SALE—Ideal Georgia Farm of 637 acres. All kind of equipment, including live stock; 450 acres in cultivation, 200 acres in peaches. Deal direct with owner. Box 136, Centerville, Tennessee.

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MR. BUSINESS MAN or SPORTSMAN, how would you like a winter home site on deep salt water among giant oaks, magnolias, pines, green lawns, where you can grow flowers, oranges and grapefruit? Within two hours' reach by automobile of duck, quail, deer, turkey and other wild game. Excellent climate and health. Our chief industry is growing vegetables for shipment in car and train lots in winter and early spring. Plenty of laborers. Good churches, schools, and real American citizens. Write us for further information.

LAKE REALTY COMPANY,
Beaufort, S. C.

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FOR SALE—Ten sections of land in Midland County, Texas, in solid body. This is one of the best ranches in Western Texas, land will run 90 per cent tillable and can be cut in small tracks and sold to farmers at an advance of 66 2-3 per cent over purchase price. Also body of twelve sections of land in Lynn County, Texas which is fine farming land that can be resold for almost double purchase price to farmers. This country is settling up very fast with farmers from the eastern part of Texas and the older states and this land can be resold very easily. Also good new grain in Mitchell County, Texas, in good cotton country. All of this property is above the boll weevil line and is the coming cotton country of Texas, as our production is growing every year and is attracting the attention of the cotton growers. Address R. O. Pearson, Colorado, Texas.

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FARMS TO FIT—All kinds, easy terms, booklet free.

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WANTED CAPITAL to develop town site, Fair Bluff, N. C. Summer and winter resort. Address J. E. DICK, Fair Bluff, N. C.

WANTED—Location for modern brick plant or position as manager of plant now operating. Address No. 6255 care Manufacturers Record, Baltimore, Md.

OWNER OF PATENT on a razor blade sharpener of new design and unusual merit wishes to lease same on a royalty basis to responsible concern. This lease will enable manufacturer to raise additional capital if needed. C. Thomas, 503 Scollard Bldg., Dallas, Texas.

MANUFACTURERS, Distributors, Exporters and Importers Attention: The State of Alabama will spend \$10,000,000 for seaport terminals and developments at Mobile, Ala., and will make a great port of that city. We offer 5 square blocks of property adjacent this port development and adjoining the business district of Mobile, price very reasonable, will sell in part or as a whole. Ingram Land Co., Main 5346, 414 N. 20th St., Birmingham, Ala.

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WANTED TO PURCHASE—Water power site capable of developing 1000 horse power or over. Address No. 6251 care Manufacturers Record, Baltimore, Md.

LOCATION WANTED

WANTED—Suitable factory or location for the manufacture of small wooden toys on a large scale. Location must have ample male and female labor; low power rates; good railroad connections; near large quantities of cheap low grade basswood, poplar and other woods. Line is patented and trade-marked. Have sold several hundred thousand dollars worth yearly. Save needless correspondence by giving in your first letter full particulars of what you have to offer. Address No. 3655 N. Smedley St., Philadelphia, Pa.

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LOUISBURG, N. C., Wants Manufacturing Industries of all kinds. We offer good railroad facilities, ample water supply, good labor conditions, healthful climate and plenty of cotton grown all around us. We want you to locate your industry in our city and will co-operate with you in every way possible. Let us hear from you. BUSINESS MEN'S ASSOCIATION
Louisburg, N. C.

ALTAVISTA, VIRGINIA

A live town.
Two railroads, Virginia City basic freight rate.
Free manufacturing sites.
Staunton River passes through the town. We invite you to look us over.
CHAMBER OF COMMERCE

INDUSTRIAL PLANTS

FOR SALE—Veneer Plant and Sawmill, almost new. With or without buildings, containing fifty thousand feet floor space. All in good repair. Location good, good rates, plenty of good timber. A bargain for quick sale. Address No. 6242 care Manufacturers Record, Baltimore, Md.

FACTORY SITES

For Sale
MANUFACTURING SITE
on Railroad and Water
Hastings Bros., Norfolk, Va.

FREE FACTORY SITES.

A half mile frontage on the main line of the B. & O. R. R. will be given free to factories for sites, in East View addition to Terra-Alta, W. Va. Good water. Natural gas. Cheap coal. Unlimited electric current at lowest rates. Labor supply good. Cement state highway runs thru property. Address Dr. Geo. Beerbower, Trustee.

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WRITE for our free Guide Books and "RECORD OF INVENTION BLANK" before disclosing inventions. Send model or sketch and description of your invention for our free prompt opinion of its patentable nature. Highest references. Reasonable terms. VICTOR J. EVANS & CO., 712 5th St., Washington, D. C.

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AGENCIES WANTED

TRAVELING SALESMAN—Twenty years experience in Md., Va., Pa., desires mfg. lines only; thoroughly acquainted in this ter-ritory; best of references, Address No. 6230, care Manufacturers Record, Baltimore, Md.

SITUATIONS WANTED

POSITION WANTED by experienced trav-eling man for the sale of Prepared Roofings, Paints and Coatings for North Carolina and South Carolina, on commission or salary. J. A. Lambert, 101 West 5th St. Atlanta, Ga.

MANAGER-BUYER capable handling any department manufacturing business. Ex- tensive buying experience varied factory lines. Good organizer and plant supervisor. Might invest. Address No. 6249 care Manu- facturers Record, Baltimore, Md.

SITUATIONS WANTED

SALESMAN with sixteen years experi- ence wishes to connect up with a manu- facturer or distributor for a line of ma- chinery Dec. 1st. References furnished. Address No. 6257 care Manufacturers Record, Baltimore, Md.

POSITION WANTED—By engineer with firm contemplating increasing plant to draw estimate and superintend erection of new work. Experience North and South. Ad- dress 6253, care Manufacturers Record.

A CAPABLE EXPERIENCED BUSINESS MAN is open for a permanent position of responsibility and trust. Have successfully handled large plants as manager including office and correspondence. Am thoroughly honest, reliable, no bad habits and my record is absolutely clean. Would consider salary and profit-sharing proposition. What can you offer. Address No. 6254, care Manu- facturers Record, Baltimore, Md.

CONSTRUCTION SUPT. American, single, go anywhere, good organizer, working knowl- edge, Spanish Language, with long experi- ence on difficult sewers, water lines and pavements, now employed desires change. No. 6252, care Manufacturers Record.

MEN WANTED

FIRST CLASS leather belting manu- facturer requires representative, experience necessary, good opportunity for the right man. Address No. 6250 care Manufacturers Record, Baltimore, Md.

MEN WANTED

Salaried positions \$2500 to \$25,000 up- ward; executive, technical, administrative, engineering, manufacturing, professional managing, financial, etc., all lines. If you are qualified, and receptive to tentative offers for a new connection you are invited to communicate in strict confidence with the undersigned, who will conduct pre- liminary negotiations for such positions. A method is provided through which you may receive overtures in confidence, with- out jeopardizing present connections, and in a manner conforming strictly to pro- fessional ethics. Send name and address only; preliminary particulars will be sent without obligating or compromising you in any way. R. W. Bixby, Inc., 403 Lockwood Building, Buffalo, N. Y.

ESTABLISHED construction company, doing general building construction, requires the services of an experienced estimator. State experience and salary expected in first letter. Communications confidential. No. 6256, care Manufacturers Record.

MACHINERY AND SUPPLIES

FOR SALE:

At a sacrifice 2 Merriman Asphalt Plants. Price low for quick sale. P. O. Box 1488, Greensboro, N. C.

MACHINERY AND SUPPLIES WANTED

WE WANT TO BUY one used or rebuilt $\frac{3}{4}$ or 1 Yd. Dragline Caterpillar Tread. Price must be right. C. A. Tant Construc- tion Co., Marked Tree, Ark.

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SALE AT PUBLIC AUCTION

Of the entire plant of the Rosslyn Packing Company

Pursuant to the terms of an order of the United States Court for the Eastern District of Virginia, entered on the 13th day of November, 1923, in the cause of the Rosslyn Packing Company, Bankrupt, the undersigned Trustee in Bankruptcy, will offer for sale at public auction on the premises at Rosslyn, Arlington County, Virginia, on

Monday, December 10, 1923

At 3 O'clock P. M.

the following described real and personal property:

1. All that certain tract or parcel of land, situated at Rosslyn, Arlington County, Virginia, and described as fol- lows: BOUNDED on the south by Canal Street, on the north by Potomac River, on the west by the land formerly held by H. H. Wells, Trustee, and on the east by the lands of the United States Government, at the south end of the Aqueduct Bridge, and designated on the plat of D. J. Howell, Surveyor, made in 1890, as Lots 1, 2, 3, 4, 5, 6, and 7, in Block 14, of Rosslyn, Arlington County, Virginia, containing 56,162 square feet, more or less, together with such riparian rights on the Potomac River as may lawfully attach to said property with all easements, appurtenances, ways, rights and privileges to the same belonging, together with all the buildings, machinery, fixtures, and all market rights, privi- leges, stands, in any market or markets in the City of Wash- ington, District of Columbia, or in any other place or places which the said Rosslyn Packing Company now owns.

2. All automobiles, trucks, wagons, and other personal property, located at the plant of the Rosslyn Packing Com- pany.

TERMS OF SALE: The said real and personal property will be sold free of all encumbrances for cash. The suc- cessful bidder for the real estate will be required to deposit with the said Trustee on day of sale a certified check for \$10,000.00, and the balance will be payable upon confirmation of said sale by the Court.

Purchasers of the personal property will be required to pay the full amount of their bid in cash at the time of sale.

The property to be sold is a fully equipped packing plant, located on the Potomac River across from Washington, D. C. It may readily be utilized for an ice and ice cream manu- facturing plant with a thickly populated market right at hand. For further particulars address or apply to

J. RANDALL CATON, Jr.

Trustee in Bankruptcy

Address: 111 South Fairfax Street, Alexandria, Va.

W. J. Oliver & Company

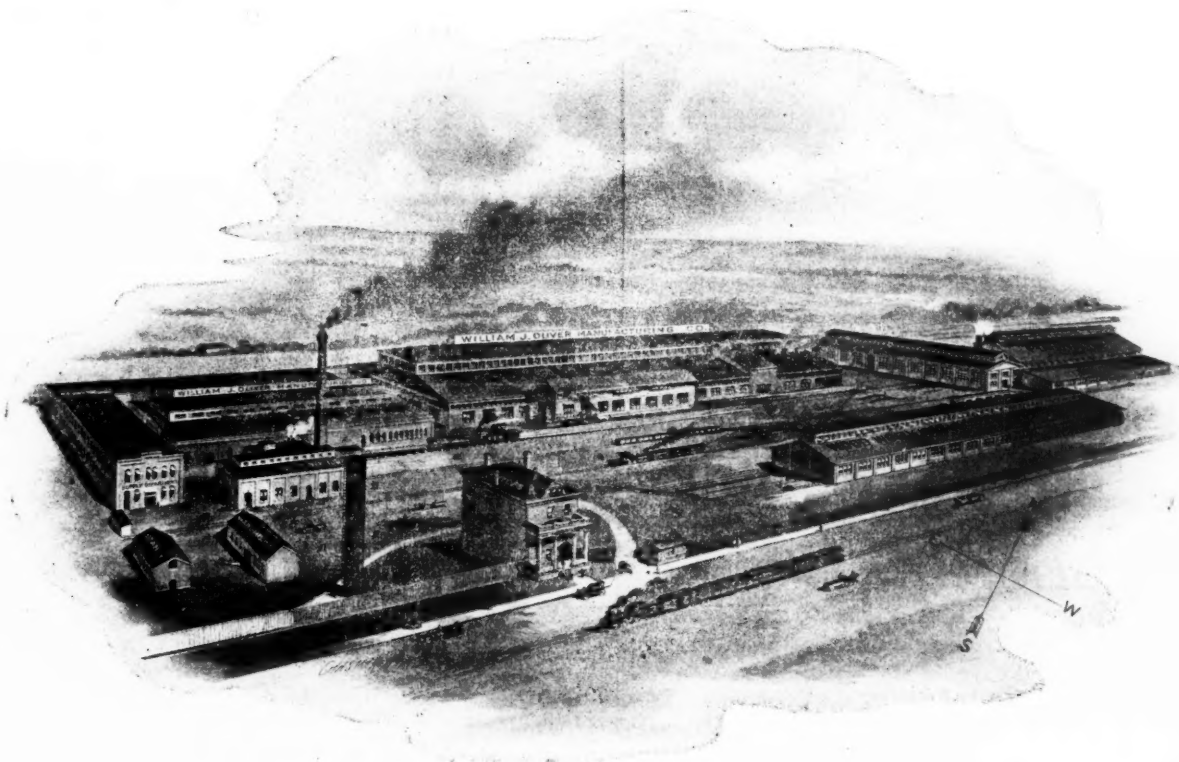
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FOR SALE

DECEMBER 15, 1923, 10 A. M.

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Sold in bar of equity of redemption. Free from taxes and all encumbrances.

To be sold in 3 different tracts and as a whole.

Those bidding on the plant as a whole will be required to deposit a certified check with the clerk and master for \$10,000.

Those bidding on any one of three tracts will deposit certified check with the clerk and master for \$2500.

For Particulars

Write, **R. A. BROWN**

Clerk and Master

or **JAMES B. CRUMBLISS**

Receiver

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Abundant supplies of coal, coke, iron, timber and other raw materials lie in the regions of Georgia and Alabama, which are traversed by the

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Many of the cities on the Central of Georgia Railway occupy advantageous positions for distributing warehouses, and a number of the larger northern and eastern manufacturers supply their southeastern trade from branch houses in these cities.

Full and detailed information upon application.

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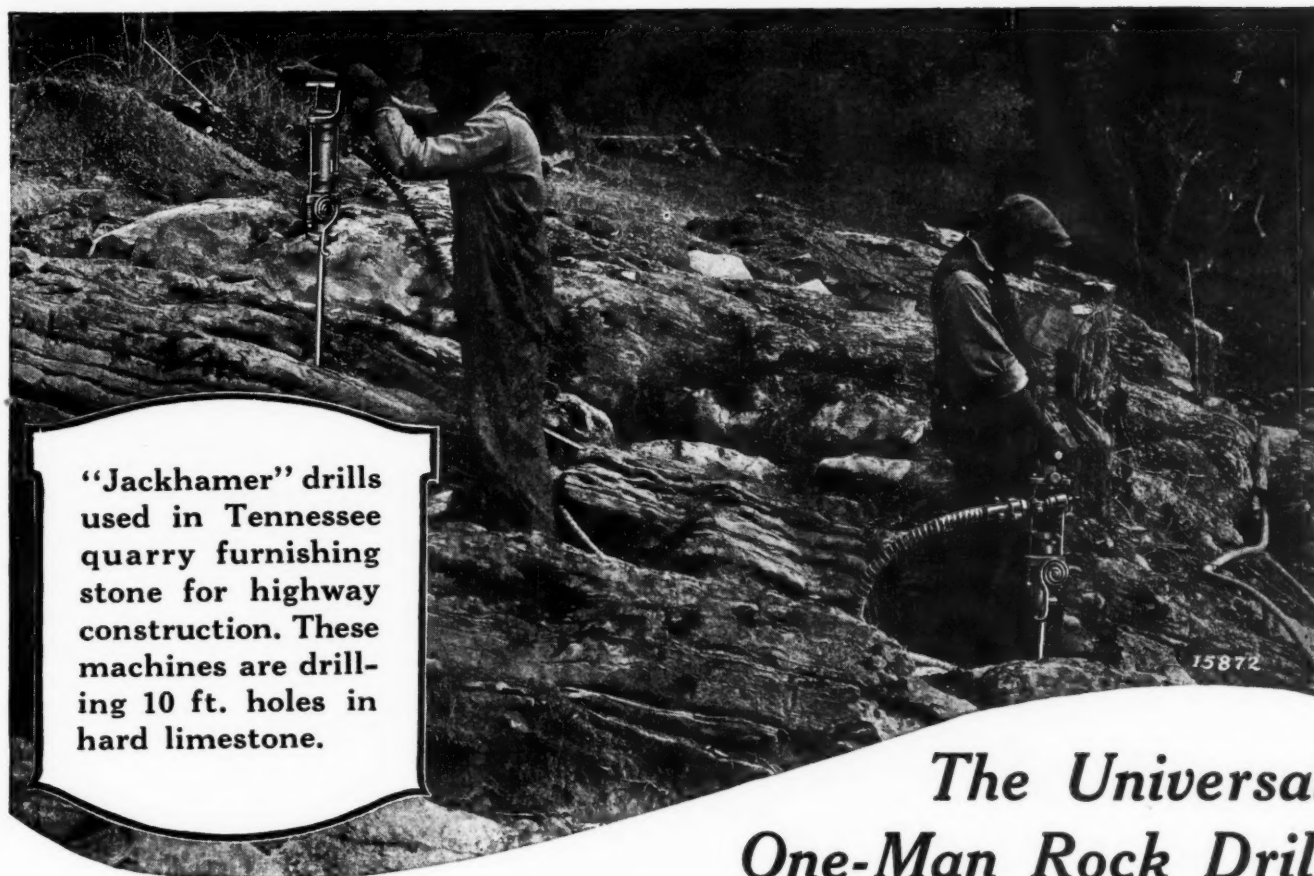
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For road construction—grading, quarrying, ditching, trench digging—or for building excavation, tunnelling, block hole work, etc., use the "Jackhamer."

And, for furnishing air to your "Jackhamer" Drills use an I-R Portable Compressor—a compact, complete, easily moved air compressor plant on wheels, built primarily for the contractor.

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